# A Lecture
## ON
# THE APPEARANCE OF PARALYSIS ON THE SIDE OF A LESION IN THE BRAIN.

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(*Concluded from p. 80.*)

A VERY natural explanation of direct paralysis has been given by Mr. John Hilton, Longet, and other physiologists. It consists in the supposition that in those cases there was no decussation of the anterior pyramids. No doubt this explanation would be decisive if it were shown that this decussation had no existence in such cases, and also that in the medulla oblongata the anterior pyramids are really—as is believed by almost all physiologists—the only, or at least the principal, channels of communication between the will and the muscles of the limbs. But, as I will show, the decussation of those anterior parts of the medulla oblongata, when carefully looked for, has always been found by anatomists of our times, not in cases of direct paralysis (in which, unfortunately, no examination seems ever to have been made), but in thousands of cases of healthy or diseased brain; and, as I also will show, the anterior pyramids, if they contain some nerve-fibres endowed with the function attributed to them, are very far from being the principal channels between the motor centres and the muscles of the limbs.

Is the decussation of the anterior pyramids absolutely constant? The statement made by Serres, that he and his pupils found the decussation in every examination of the brain made by them (and this was done in eleven hundred human bodies), is also what I have heard from all the anatomists whom I have questioned. It is also the result of my own researches and of those of my pupils, not on the human brain alone, but also on the brain of dogs, cats, rabbits, and other mammals. No living anatomist, so far as I know, has ever met with a case of absence of the decussation of the anterior pyramids, or at least of most of its usually decussating fibres. The recent researches of Flechsig* show that the number of decussating fibres is variable, but not to a considerable extent, and the variations are too frequent to give ground to an explanation of facts so relatively rare as the cases of direct paralysis.

But it is useless to pursue the demonstration that anatomy gives no support to the supposition that direct paralysis is to be explained by an absence of decussation of the anterior pyramids, if it is shown that these parts of the medulla oblongata do not possess the function attributed to them, or, at least, are only partially endowed with it. Magendie† says that after having divided transversely in living animals one of the anterior pyramids, he found no paralysis either on the same or the opposite side, and that after the transversal section of both pyramids, in the middle of their length, there was no very evident trouble in the voluntary movements. He adds, "I believe I have only observed some (*un peu de*) difficulty in the forward walking (*marche en avant*)." Moritz Schiff‡ states also that after a transversal section of both anterior pyramids he found no evidence of either lasting or temporary paralysis. In 1851 Messrs. Vulpian and Philipeaux§ performed on dogs an experiment which in more than one sense was an *experimentum crucis*; they divided the medulla oblongata longitudinally at the level of the crossing of the fibres of the anterior pyramids on the middle line. In two of their experiments they found that there was no complete paralysis. The animals stood for some time on their limbs, and one of them was even able to make several tottering steps. For those who know how much even a prick of the medulla oblongata is powerful in diminishing strength (as sometimes even a sudden cessation of life may be due to that cause), it will be evident that this experiment agrees with those of Magendie and Schiff in demonstrating that if the anterior pyramids have in some degree the motor function attributed to them, they are certainly not the only part, nor even the principal one, in the medulla oblongata endowed with that function.*

For many years I held very different views, but recent experiments on dogs, rabbits, and guinea-pigs have led me to accept that conclusion. After having made the same operation that the two last physiologists have performed, or the transversal section of either one or both pyramids, I have often obtained very nearly the same results obtained by Magendie and Messrs. Vulpian and Philipeaux. Never, however, did I see, what Magendie and Schiff seem to have seen, that there is no trace of paralysis after a section of one or of both pyramids. Always, on the contrary, even when one pyramid only had been divided, I saw some trouble in the voluntary movements, but sometimes the weakness, which was always greater on the opposite side, was really very slight, and required care to be detected.

But there are clinical facts, which as they were observed in our species, are more conclusive than the results of vivisections. One of the most accurate observers of our time, Professor Vulpian, has published two such cases.† In one of them the autopsy showed that the two anterior pyramids were very much atrophied, the right much more deeply than the left. There was also a slight loss of substance in the left crus cerebri, and a hemispherical cavity in the anterior part of the inferior surface of the pons Varolii, the cavity being half a centimetre in depth and diameter, and containing a serous fluid. A few days before death, the patient walked without dragging either of her lower limbs, and made use of her hands. In other words, there was no appearance of paralysis, although the crus cerebri and the pons Varolii, and the left anterior pyramid, were altered as I have said, while "the right anterior pyramid seemed completely atrophied."

In another patient who was attacked with paraplegia owing to disease of the dorsal region of the spinal cord, there was no trace of paralysis in the upper limbs, and the anterior pyramids were both considerably atrophied. "Almost all the nerve-fibres of these pyramids had disappeared, and the normal tissue had been replaced by sclerous tissue."

I could mention a number of other clinical observations having almost as much value, but a single well-observed case is quite sufficient, and I will not therefore add any other fact to the two decisive cases of Professor Vulpian.

The experimental, and still more perhaps the clinical, facts I have mentioned, clearly show that if the anterior pyramids contain some of the motor nerve-fibres through which the will acts on the muscles of the limbs, they certainly do not contain all or even most of the nerve-fibres endowed with that function. This being established, it is clear that we are not entitled to explain by a lack of decussation of the anterior pyramids any case of direct paralysis, but especially those cases in which the loss of voluntary movements was complete or considerable.

In addition to the arguments I have given to show that the appearance of paralysis on the side of a lesion in the brain cannot be explained by a lack of decussation of the anterior pyramids, I will say that in a great many cases in which I have produced in dogs, rabbits, and other animals, a paralysis on the side of an irritation of the surface of the brain by an application of heat, I have very carefully examined the medulla oblongata, and found there the normal condition of interpyramidal decussation.

But for those who believe that the *crossed* paralysis in cases of brain disease—i.e., the kind of paralysis which we meet every day—depends necessarily and entirely on a

* Centralblatt, 1874, No. 36, p. 561. Analysed in the Revue des Sciences Médicales, de G. Hayem, 1875, vol. v., p. 9.

† Précis Elémentaire de Physiologie, 4ème edit., Paris, 1836, vol. i., p. 418.

‡ Lehrbuch der Physiol. des Menschen, Lahr. 1859, p. 306.

§ See Prof. Vulpian's important work, Leçons sur la Physiologie du Syst. Nerveux, Paris, 1866, p. 492.

* In a good paper on the Medulla Oblongata John Reid says that it would be interesting to ascertain the functions of the decussating fibres of the pyramids. On irritating the upper part of the pyramidal bodies in two kittens with the point of a needle, he observed extensive muscular movements, but whether these belonged to the class of reflex movements, or resulted from the impression being conveyed directly to muscles, he could not determine. (See his Physiological, Anatomical, and Pathological Researches, Edinburgh, 1848, p. 313).

† Loc. cit., pp. 493 and 494.

lesion of decussating conductors, or of centres from which start decussating conductors, it is evident that a decussation of the voluntary motor nerve-fibres must take place somewhere in the base of the brain, and for those who have such a view it is quite natural to suppose that in the exceptional cases in which a brain lesion produces a direct paralysis, there is no decussation.

If what I have said excludes sufficiently the anterior pyramids, what then is the place where the voluntary motor nerve-fibres decussate? J. Budge,* Valentin,† Foville,‡ and others have supposed that this decussation takes place all along the base of the brain, and principally in the pons Varolii. It is easy to show that this proposition is contrary to facts.

If it were true that there is a decussation of voluntary motor conductors all along the base of the brain, beginning at the upper part of the crura cerebri, at the base of the tubercula quadrigemina, and ending at the lower part of the medulla oblongata, the *crossed* paralysis that we observe generally in cases of disease of one of the lateral halves of the medulla oblongata or of the lower part of the pons Varolii could not be—what it often is—complete. Take, for instance, a case like that of Dr. Samuel Annan,§ in which there was a tumour occupying the right lateral half of the medulla oblongata and a small part of the right side of the pons near the medulla, producing *complete* paralysis of the left limbs and of the right side of the face. The paralysis in this case should have been incomplete, because, according to the theory, all the voluntary motor fibres decussating above the seat of the tumour must have escaped injury, so that some voluntary power should have remained in the left limbs.

In many other cases‖ of disease either at the place where it was in Annan's case, or in the pons Varolii alone, a complete crossed hemiplegia was observed, so that there is no question that with a normal state of either of the parts above the pons where a decussation is supposed to exist, and sometimes also of the upper part of the pons itself, there was a paralysis the completeness of which was in opposition to the supposition of such a decussation. Still more, supposing that in those cases, the disease occupies one lateral half of the lower part of the pons, or one half of the medulla oblongata, the decussation, if it exists, must necessarily bring into the part diseased nerve-fibres from the other side of the brain; so that according to this supposition of a decussation, many voluntary motor fibres coming from the right side of the brain—when, for instance, there is disease of the left side of the medulla oblongata or pons Varolii—would necessarily be paralysed, and as they go to the muscles of the left limbs there should be a direct paralysis (that is on the left side) together with the crossed paralysis existing in the right side. Such is not what we observe, at least in most cases.

Therefore, for these two decisive reasons—1st, that the crossed paralysis is often complete, while according to the theory it should not be so in these cases; 2nd, that there is no marked direct paralysis, such as should exist according to the theory,—we must reject the supposition that the voluntary motor nerve-fibres decussate above the lower part of the medulla oblongata.

And now, if it is certain, as I have, I think, positively proved, that at the lower part of the medulla oblongata, if there are nerve-fibres among those that decussate which are voluntary motor conductors, their number cannot be very large, it is clear that the explanation for crossed hemiplegia must be looked for in something else than the supposed passage of voluntary motor fibres from the brain on one side into the spinal cord on the other side. It is clear—to express this idea in other words—that a decussation of the voluntary motor conductors is not the organic condition allowing the production of the common crossed paralysis.

Decussation not being the organic condition of crossed paralysis, it is evident that its supposed absence cannot be the ground of an explanation of direct hemiplegia.*

After this argumentation and these conclusions, it would be almost useless to discuss at length the views that in all brains there are in each half two sets of voluntary motor nerve-fibres—one direct, another decussating; and that a direct or a crossed paralysis depends on the seat of the paralysing lesion. There is no doubt that certain parts of the base of the brain which have been supposed to contain non-decussating motor fibres, owing to their relations with the anterior columns of the spinal cord, are more often than others the seat of the lesion in cases of direct paralysis, but the same parts are as often found diseased in cases of crossed paralysis.

Certainly a case like that of Dr. A. T. H. Waters, of Liverpool, in which there was a wound of the posterior and lateral parts of the right half of the medulla oblongata, with paralysis of the right half of the body and face, would easily be explained by the supposition that those parts of the medulla contain voluntary motor fibres that do not decussate; but what then of the case of Annan, already quoted, in which the same parts (with others) were destroyed, and in which there was only crossed hemiplegia? Still more what to do with a case like that of Dompeling,† destroying not only the same parts that were lacerated in the case of the able Liverpool physician, but also most of the fibres of the anterior pyramid, and still producing hemiplegia on the corresponding side only?

It has been supposed by some physicians that direct paralysis has its cause in some influence exerted on the opposite side of the brain by the diseased part. My eminent friend Prof. Vulpian,‡ in a case of direct paralysis from disease of the cerebellum, found that there was more fluid in the lateral ventricle of the side opposite to that of the paralysis. He asks if that is not a cause that could explain the paralysis in that case and in others. Such a cause may have existed sometimes, and the paralysis may have been due to it, but in many cases of direct paralysis no fluid was found in the lateral ventricles; in many others there was as much in one as in the other; and in one, a case of Hahn,§ there was more fluid in the lateral ventricle on the side of a tubercle in the brain which was also the side of the paralysis than there was in the other lateral ventricle. Besides, there are on record three cases of disease of a lateral ventricle with paralysis on the same side.

A state of anæmia or œdema of one side of the brain has also been supposed to explain direct paralysis, which, if this explanation were right, would become a crossed paralysis. This explanation, if it could at all be true for some cases, is certainly inacceptable for most cases. Take, for instance, a case like that of Luneau,‖ in which there was a clot in the left vertebral artery, with paralysis on the side where circulation was altered in the medulla oblongata. In this remarkable case, the organic alteration was evidently limited to the side of the arterial obliteration, which was that of the paralysis. An almost similar case has been published by Dr. W. H. Dickinson.¶

Direct, like crossed paralysis, may be due to the most various organic causes: a wound, a tumour, an abscess, softening (due to embolism or inflammation) atrophy, or hæmorrhage. Direct paralysis, like the other kind, may also be caused by disease almost anywhere in the brain: the meninges, the convolutions, the anterior, middle, or posterior lobes, the centrum ovale, the walls of the lateral ventricle, the crus cerebri, the crus cerebelli, the cerebellum, the pons Varolii and the medulla oblongata, and also the corpus striatum and the optic thalamus. Direct paralysis can also, like crossed paralysis, be complete or incomplete,

* Untersuchungen über das Nervensystem. Erstes Haft. Frankfurt-am-Main, 1841. pp. 27, 28.

† Traité de Névrologie. Trad. Française. Paris, 1842. pp. 230, 240.

‡ Traité Complet de l'Anatomie du Système Nerveux. Paris, 1844. pp. 298, 326.

§ The American Journal of the Medical Sciences, vol. ii., July, 1841. p. 105.

‖ See for such cases a paper of mine in Archives de Physiologie Normale et Pathol., vol. i. 1868. pp. 718-24.

* Budge's view, that the nerves of the arms decussate in the pons and those of the legs in the medulla oblongata, are contrary to a great many facts. It is sufficient to say against that view, that if it were correct, a disease destroying a lateral half of the pons would produce paralysis of both arms and one leg. In most cases, instead of this peculiar paralytic manifestation, there was crossed hemiplegia; in one, direct hemiplegia; and sometimes there was paraplegia with paralysis of one arm.

† Dr. Waters's case was published in the Medico-Chirurgical Transactions, London, 1868, vol. xlvi., p. 115. I have reprinted it with Dompeling's case in Archives of Scientific and Practical Medicine, New York, 1873, pp. 135-137.

‡ Comptes Rendus de la Société de Biologie, 1861, pp. 39-40. I will call attention to the interesting remarks made by Prof. Vulpian on the decussation of the voluntary motor fibres. (Foot-note, pp. 38-9.)

§ De la Méningite Tuberculeuse, Paris, 1853, p. 37.

‖ Comptes Rendus de la Société de Biologie, 1870, p. 122.

¶ St. George's Hospital Reports, vol. i., 1866, p. 281.

strike only one limb or both, be accompanied by contracture or convulsions, anæsthesia or hyperæsthesia.

Many persons erroneously believe that in our century cases of direct paralysis have been less frequently observed than in the preceding centuries; and this supposition is allied with the other, that at least many of such cases are worthless because the authors who have published them were not good observers. Besides the names of able or eminent men I have given already, there are many others, so that there is no doubt as regards the exactitude of observation. It will be enough to point out at random among the writers, not yet named in this lecture, who have published cases of direct paralysis the following:—Dr. J. Hughlings Jackson, R. Bright, Mr. Campbell de Morgan, Cruveilhier, Prof. Horner, Dr. Peter Eade of Norwich, Jobert de Lamballe, Wenzel, Dr. Reynaud of Paris, Prof. Lebert, Gibert, Cazauvielh, Prof. Andral, Blandin.

Cases of direct paralysis are certainly not so very rare as is believed. I have seen five or six—two only, it is true, in which an autopsy has demonstrated the correctness of the diagnosis. Wedemeyer, Rostan, Mr. Callender, have each of them seen many cases. My friend Dr. J. Hughlings Jackson has seen at least two, and many other observers have also published two cases.*

Reverting now to what I have said in the beginning of this lecture, I will repeat that it is not possible to look upon paralysis in cases of brain disease as being the effect of loss of function of the part diseased, and that we must admit that in those cases there is an irritation starting from the place we find diseased after death, and acting on more or less distant parts of the nervous centres, in such a way as to arrest their activity, and thereby cause the paralysis.

With this view, and only with it, we can explain that a lesion in one part of the cerebral lobes will produce or not a paralysis, that the paralysis will exist in the same or the opposite side, or in both sides (and there are many such cases in which a direct and a crossed hemiplegia simultaneously, or one after the other, will appear in consequence of a lesion in only one-half of the brain). With the view I have given, the immense differences that are found in the degree, the duration, as well as the seat of paralysis, can be explained, as we are to expect the greatest variety in effects of irritation, while this excessive variety is a death-blow to the admitted theory that paralysis in brain disease depends on loss of function of the part diseased.

These facts and reasonings, with many others mentioned in this lecture, as well as a great many not mentioned, lead to the following conclusions:—

1st. That it is wrong to conclude from the apparition of paralysis, when there is disease in the brain, that the loss of movements depends upon the loss of function of conductors or centres employed by the will in the production of movements.

2nd. That if there is any decussation of voluntary motor conductors anywhere in the base of the brain, it is not owing to the absence of such a decussation that direct paralysis sometimes appears.

3rd. That it is owing to an irritation that one-half of the brain is capable, when diseased, of producing paralysis either in the corresponding half of the body or in the opposite one.

* I must say that some of the cases I have collected may be altogether insignificant, because the printer or the writer, instead of the word right, may have used the word left, and vice versâ. I have tried to guard against this by inquiring, and well I did, as my eminent friend Dr. Charcot and Dr. S. Wilks have answered about cases of theirs, that such a fault had been committed. But I may not have inquired enough.

NORWICH MEDICO-CHIRURGICAL SOCIETY. — The fourth meeting of this Society was held at the Medical Library, on Tuesday, January 4th. The following gentlemen were elected as members:—Messrs. J. H. Lyddon, W. H. Day, and F. C. Bailey, Norwich; Mr. Thomas Lettis, Yarmouth; Mr. H. P. Banks, Holt; Mr. J. R. Clouting, Thetford; Mr. A. P. Gould, London; Mr. C. B. Wiles, Attleborough; Mr. George Bond, Yarmouth; Mr. W. E. Soffe, East Harling; Messrs. F. M. Evans, J. H. Orfeur, and Alfred Cooper, London; and Mr. W. S. Priestley, St. Faith's. The discussion on Mr. Turner's case of catalepsy was resumed. Dr. Beverley exhibited Hawksley's apparatus for the inhalation of ether. Mr. Turner presented a patient suffering from great enlargement of the liver. The next meeting will be held at the Norfolk and Norwich Hospital, on the 1st of February, at 3.30.

# Lectures
## ON
# INDIVIDUAL HYGIENE.

*Delivered at St. Bartholomew's Hospital,*

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## LECTURE I.

HYGIENICS is a term which may be arbitrarily employed to comprehend a vast series of subjects, upon which more accurate knowledge is much needed at the present day.

For convenience, again, we may establish three great departments of hygienics. (1) *General hygienics.* The study of the effects of external influences upon the health of man. The hygiene of the house or habitat and surroundings—*circumstantia vitæ*—a subject upon which I lectured last year. (2) *Individual hygienics.* The study of individual construction—the living machine—man himself, his form and attributes,—the subject which I have selected for my present course. (3) *Administrative hygienics.* The knowledge of the factors of health applied for its promotion; a subject which I reserve to discuss until politicians handle it. When they show how the necessary money is to be raised to pay for sanitation, medical men will not be behindhand to advise statesmen how they had best apply it.

As an introduction, I will premise a few remarks upon health; to decide, if this be possible, what it is we seek in health, and how we are to appraise it; how to examine any individual so as to determine his particular measure of health.

It is a far more easy thing to ascertain the health-rate of a town or population than of an individual. The inference follows, then, directly upon established facts. Death-rates; mean death age; mortality at different periods of life; returns of sickness. But from what data will you appoint an individual health-rate? What standard are we to set up? Are we all agreed upon an ideal health as something separate from a realisable measure of health?—since this last is what we must rest content with. The scale of health can only be graduated by degrees of disease, or degrees of immunity from disease.

Health and longevity are not synonymous, neither are health and great muscularity. The most muscular men, great prize-fighters, men who could fell an ox with their fists, have been known to be always ailing and complaining about themselves. The state of perfect training, regarded by those who know little of it as a condition of most perfect health, is rather one of morbid imminence.

Longevity, like height, is a race attribute, but it does not signify health. The three oldest people I ever knew, women who reached respectively eighty-nine, ninety-eight, and a hundred, were valetudinarians, and had been so nearly all their lives.

I wish you to perceive that while a great deal of sickness may be compatible with long life, and a huge amount of disease is preventable and quite unnecessary, there must still always remain a fair quantity of illness which has to be accepted as the allotment of the sons of Adam, which will lay a man by for some few days every year of his life, which will confine him to house or bed now and then as he advances in years, and which he can neither prevent by any care he takes of himself, nor avoid by following the guidance of the very best Æsculapius.

The conditions under which life is held make it a tenancy, not a freehold.

But we may profitably occupy ourselves in scrutinising men like machines, and noting what is good and what bad in construction, what kind of build of body is adapted to fulfil good mental and bodily work, to endure long, and waste very little, if treated fairly.

Insurance offices mean by average healthy lives persons who at the date of their examination show no sign of

disease, and the history of whose past lives, as well as that of their families, exhibits no proclivity to early death.

When Government advertises for smart young men for active service, it is understood to require persons who can endure fatigue and stand ordinary exposure without breaking down.

Celsus has defined health so well that I may quote him to you. He says:—"Sanus homo qui et bene valet et suæ spontis est, nullis obligare se legibus debet, ac neque medico neque iatralipta egere." And then continues, "Hunc oportet varium habere vitæ genus, modo ruri esse, modo in urbe, sæpiusque in agro, navigare, venari, quiescere interdum. Siquidem ignavia corpus hebetat, labor firmat; illa maturam senectutem, hic longam adolescentiam reddit."

No definition of health could be more apt than youth prolonging its activity into a green but timely old age. He does not say long life, great strength, lots of money—the fool's earthly paradise; but to feel well and be your own master. But what does the hygienist understand health to be? His ideal is more exacting, if his advice is less generous, than that given by the old Latin physician. The hygienist defines health as comparative exemption from disease at each period of life; he regards it as an abstract quality of the body, just as virtue is of the mind, arising out of a perfect adjustment of the several component parts towards the requirements of the whole.

If this be allowed, let us next inquire how we are to discover and appoint this quality of body. What form or appearance of man is most likely to possess it? Will he be a *bel homme*, or a Hercules, with broad shoulders, short thick neck, and small round head? Be an Apollo or an Adonis? If a woman, will she be exquisitely proportioned like the Venus of Praxiteles? It is at least probable that such an exterior as artists and sculptors admire will coincide with health, for beauty in form usually accompanies the adaptation of means to ends, parts to purposes; but if you understand health to be comparative immunity from disease, and a disposition to resist it, you must not expect this endowment will find immediate or precise expression in either form or feature. Nay, I shall go further, and say that disease is so subtle a thing that you cannot estimate any individual's health at a mere glance. You may make a guess, and perhaps a shrewd guess, if you have had experience of disease, and some practice in examining persons. But unless you have learnt what to look for and how to examine, your opinion upon any individual's health, present or prospective, will not be valuable. My object to-day is to teach you how to make it so.

The ideal of health is, after all, nearly what common sense teaches us it should be—a body that functions (as the Americans phrase it) well and unconsciously, and possesses recuperative powers in store.

The following are the chief things to be noticed in estimating the construction of any person's body:—The age, the weight, height, and girth of chest, have all to be taken into account. They bear a certain definite ratio to each other in well constructed bodies, and you may learn what these proportions are from the table I have hung up.

the nipples; and, secondly, at the level of the xiphoid cartilage. The upper girth should exceed the lower.

The next thing to ascertain is the mobility of the chest. Mere girth will not give you what you seek to know, which is the amount of air ordinarily changed at each respiratory act, and the maximum mobility, or the greatest amount which can be changed. For instance, a 30-inch chest-girth which expands only two inches to 32 after deepest inspiration, is capable of changing less air than one measuring 29 inches and expanding to 33 inches. Hutchinson found that the thorax presented the greatest capacity in men whose height ranged between 5 feet 6 and 5 feet 8 inches; and that it was relatively smaller in men measuring between 5 feet 8 and 5 feet 10 inches.

Again, above the weight of 11¼ stone (=161 pounds), the circumference of a man's chest ought to increase about 1 inch for every 10 lb. in weight, and for every inch in height over 5 feet 8 inches the mobility of the chest should increase in definite ratio.

What Hutchinson called the vital capacity, and estimated by his spirometer, a floating cylinder which was raised from its bed like a small gas-meter, by being filled with air from the mouth, is the fullest measure of air a man can expire after the deepest inspiration. It is not so valuable a test as it ought to be because there is a good deal of knack required in blowing to one's bellows power. I do not intend to occupy your time with a lecture upon the examination of the chest, however. I only desire to call your attention to the data requisite for arriving at an opinion upon the probable health of any individual.

Take (1st) as items of unfavourable augury, a weight at all below the average, which should correspond with the height—important in the degree in which it is constant; (2nd) a thoracic girth not commensurate with the weight; (3rd) any chest-girth in an adult less than twenty-eight inches; (4th) a thoracic mobility between deepest inspiration and fullest expiration measuring less than three inches.

But it is not merely by stripping, weighing, and measuring a man that you estimate what he is worth—you must make him quicken his circulation, and then examine his heart and pulse and auscult his chest; you must feel over the heart and large vessels for impulse and thrills; a certain amount of pressure should be borne over the heart and chest without interfering with the heart's action; its rhythm should be regular, its impulse not excessive, its sounds distinct and clear. There are many other things you must notice as well—the shape of the abdomen, which ought not to be prominent, the limits of liver and spleen, the hernial sites, the general formation of spine and chest and feet, varicocele and piles, obesity and leanness. There are features about a pulse you have to value; one that is succinct, firm, and regular, rendered fuller by feeding, thinner by fasting, altered in rapidity by posture; but, however quickened, that should always be distinct. Temperature, too, appoints a great deal; while high temperatures suggest the febrile state, low temperatures often signify existing thoracic disease or a feeble state of health. I have observed that the subjects of chronic peritonitis, of brain-

| AGE. | WEIGHT. | | | HEIGHT. | | | GIRTH. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Average. | Maximum. | Minimum. | Average. | Maximum. | Minimum. | Average. | Maximum. | Minimum. |
| | st. lb. | st. lb. | st. lb. | ft. in. | ft. in. | ft. in. | inches. | inches. | inches. |
| 18 | 8 10·79 | 10 13 | 6 6 | 5 4·34 | 5 11 | 4 10¼ | 29 | 31¼ | 27 |
| 19 | 9 4·11 | 12 8 | 7 4 | 5 4·94 | 5 11¼ | 4 11 | 32 | 34 | 29 |
| 20 | 9 5·58 | 12 8 | 7 13 | 5 5·11 | 5 11 | 5 1 | ... | 33 | ... |
| 21 | 9 5·02 | 12 0 | 7 3 | 5 5·57 | 5 11¼ | 5 0¼ | ... | 33 | ... |
| 22 | 9 12·41 | 13 2 | 7 7 | 5 6·17 | 6 1 | 5 0¼ | 33¼ | 34¼ | ... |
| 23 | 10 2·95 | 12 12 | 7 12 | 5 6·17 | 6 1 | 4 11 | ... | ... | ... |
| 24 | 10 2 | 12 12 | 7 12 | 5 9·94 | 6 1 | 4 9 | 33 | 33¼ | 32 |
| 25 | 10 5·65 | 13 8 | 8 2 | 5 6·30 | 6 0 | 4 11 | ... | 34 | ... |
| 26 | 10 1·06 | 13 8 | 6 12 | 5 6·28 | 6 1¼ | 4 9 | 33 | 33¼ | 32¼ |
| 27 | 10 4·75 | 13 10 | 7 12 | 5 6·38 | 5 11¼ | 5 1 | 31 | 32 | 27 |
| 28 | 10 2·62 | 13 2 | 7 7 | 5 6·65 | 6 1 | 5 1 | 33¼ | 38¼ | 33 |
| 29 | 10 5·53 | 13 12 | 8 4 | 5 7·02 | 6 0¼ | 5 1¼ | 33 | ... | ... |
| 30 | 10 1·55 | 14 1 | 8 1 | 5 6·36 | 6 1 | 5 0¼ | 35 | 36 | ... |

You should estimate the girth at two different levels: first round the mammæ, the tape passing just above the level of

softening, of diabetes, and of renal disease, usually present temperatures below normal.

Again, the stability of the axillary temperature, when a person is exposed to circumstances which tend to depress it, such as resting one foot upon a block of ice—the test, if you remember, which Back applied in selecting sailors for an Arctic voyage—would be a valuable criterion of both a sound circulation and a good nervous system.

Lastly, you should practise yourselves in estimating the mental as well as the bodily health; for, as the Latin Grammar taught you, the *mens sana* is only found in *corpore sano*.

In summary, let me repeat that a sound constitution depends upon a body well constructed both inside and out, and upon a balance of functions, circulation, respiration, innervation, digestion, sanguification, each well, all unconsciously fulfilled; upon a temperature well maintained all the body over; and last, but by no means least, upon good habits of life. A man, as Celsus said, is not to live too much by rule; he should be the master, not the slave, of his body.

The state of health is a state of very perfect hæmatosis, in which the tissues of the body are neither too moist nor too dry. Flabby muscles and hydræmia of the intercellular tissue are suggestive of debility if not of actual disease. There appears to be a maximum of solidity, a ratio between weight and height and girth, which coincides with that period of life when the energy or vigour is greatest, when each individual is capable of his greatest feats of strength and endurance; it is better marked in males than in females, and happens at or about the thirtieth year of life. This is the quality of body which the hygienist aims at prolonging.

The following signs may be accepted as evidence of sound health:—1. Individual adaptability: the capacity in man to adapt himself to extremely opposite conditions of existence without suffering in energy. 2. Endurance: the capacity of supporting considerable bodily or mental labour without suffering from fatigue, or of repairing the latter quickly. 3. Self-command: the capacity of controlling the emotions, blunting as well as sharpening the sensations at will. 4. Resistance to morbific influences: the capacity of eliminating all poisons quickly by dint of sound organs of excretion.

The following signs of debility ought to be enumerated as well:—1. Deformity; obesity; leanness; bad construction of the skeleton or of its clothing. 2. Personal inadaptability: liability to disturbance of either mind or body upon slight provocation, such as change of food, clothing, climate, or any interruption of the ordinary habits. 3. Lack of endurance: small staying powers, requiring long rest to repair fatigue. 4. Small emotional control: the persons who are quickly provoked to anger, or are speedily moved to tears or laughter, exhibit feeble nervous systems, and are prone to nervous disorders. 5. Proclivity to morbific influences: those whose organs of sanguification or of elimination are damaged; who, although equal to ordinary calls upon them, exhibit their inefficiency by succumbing to every contagion, miasma, or poisonous influence that they encounter.

## GLIOMA OF THE RETINA.

### (WITH CASES.)

BY GEORGE LAWSON, F.R.C.S.,

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GLIOMA of the retina is a disease of early life, and, as far as my experience goes, it is limited to childhood. The youngest patient I have had under my care was an infant six weeks old, in whom the growth was probably congenital, and I have not met with a retinal glioma in a child beyond the age of five years. The disease usually commences in one eye, and after a variable period, seldom exceeding a year and a half, but often much earlier, the other eye becomes also affected. To this rule I know of two exceptions: one in a patient aged two years and eight months, from whom I removed the eye in 1872, and who has had no recurrence of the disease. The other was a patient of my colleague, Mr. Hulke, and continued under his observation for eight years after the excision of the eye, and had no return of the disease. Cases have been recorded by Knapp in which both eyes were simultaneously affected with glioma.

The causes which lead to the production of glioma are unknown. No hereditary taint can be ascertained to account for its occurrence. There is no family history of cancer in any of the relatives. The child affected is usually one of several children, those born before and those after him having been healthy. The father and mother in nearly every case under my notice were living, and apparently in good health.

In appearance a glioma resembles very closely brain-substance. It is soft, of a white or yellowish-white colour, and springs from the connective tissue (the neuroglia) of the retina. In structure it consists of a finely granular or amorphous intercellular substance, in which are embedded spherical, roundly oval, and occasionally spindle-shaped cells. As it grows, portions of it frequently undergo fatty degeneration and become so soft as to be almost fluid, whilst other parts become chalky or calcareous. It is usually of rather slow growth, extending over a period of from one to two years before it completely distends the globe and bursts through the sclerotic or cornea.

In the early stage of glioma of the retina there is no pain, and the disease is usually first discovered by the nurse or attendant noticing a bright yellow reflex from the fundus of the globe, and then, on closing the sound eye, it is found that the affected one is almost, if not completely, blind. The refracting media are generally clear, so that the growth of the tumour may be easily watched. As the disease advances there is an increased tension of the globe, and then the eye becomes painful and the child restless, frequently crying and starting in his sleep. The lens and iris are pushed towards the cornea, and the pupil becomes dilated and inactive. At a later stage of the disease the lens becomes cloudy and the cornea dull, and the tumour bursts its way through the globe and appears externally. It now seems to grow with an increased activity, and forms a fungating mass from which there are frequent recurrences of hæmorrhage, and the child dies either worn out by pain and exhaustion or from meningitis caused by an extension of the disease to the brain.

The prognosis of retinal glioma is very unfavourable. The only treatment is to excise the eye as soon as possible after the disease has been recognised. Not only is a chance of its non-recurrence thus afforded the patient, but future suffering is very materially diminished. Even when both eyes have been affected, and all hope of recovery was passed, I have excised first one and then the other eye, to give ease to the terrible sufferings of the child.

The following cases are illustrative of the above remarks.

*Retinal glioma in both eyes.*—George C——, aged two years and three months, was brought to the Royal London Ophthalmic Hospital on Oct. 1st, 1875, with both eyes affected with retinal glioma. The mother stated that she was certain that both eyes were quite healthy at birth, and she noticed no defect until the child was eleven months old, when she observed a "bright shining" from the bottom of the globe of the left eye. About three or four months ago the right became affected, and now the child is quite blind.

The disease in the left eye was found to be far advanced; the growth within the globe had pressed the lens and iris almost into contact with the cornea, which was semi-opaque. In the right eye the disease was less advanced. The humours were clear, and the tumour could be distinctly seen pressing forwards and occupying a large portion of the vitreous space. The child was emaciated, and had the aspect of much suffering. He was very irritable, constantly fretting, and would awake at night crying, and start frequently in his sleep.

I advised excision of both eyes, but to this the mother would not consent. I excised therefore only the left globe, the one which was the cause of the greatest suffering. The child was greatly relieved by the operation.

*Congenital glioma; excision of the eye; recovery.*—Samuel J——, aged six weeks, came under my care at the Royal London Ophthalmic Hospital on the 30th of November, 1875, on account of a bright shining reflection, which the mother had accidentally discovered at the fundus of the right eye. On closing the sound eye she found that the affected one was blind. The child was fretful and restless,

and evidently in pain. The parents were both healthy, and had three other children, all of whom were strong and well. On examining the eye, the glioma was at once recognised by the bright yellow reflex, which was seen without dilating the pupil with atropine. The growth occupied a considerable portion of the vitreous space, but had not advanced sufficiently to press forward the lens and iris; the humours were perfectly clear. I advised the mother to have the eye excised; and, after a fortnight's consideration, she gave her consent.

The eye was removed in the usual manner; and, on making a section of the globe, a soft glioma, about the size of a large horse-bean, was seen growing from the retina between the outer side of the optic nerve and the ciliary processes, and extending into the vitreous. A part of the growth had undergone fatty and chalky degeneration; it had become semi-fluid, and scattered amongst the soft portion were some chalky fragments. The tumour had evidently been of longer duration than eight weeks (the age of the child), and had probably existed for some time in utero.

The child recovered rapidly from the operation, and was evidently much relieved by the removal of the eye.

Harley-street, W.

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REMARKS ON A

## CASE ILLUSTRATING THE OCCASIONAL PROTRACTED COURSE OF MALIGNANT (SCIRRHOUS) DISEASE OF THE STOMACH.

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THE following case, besides being interesting in many of its details, affords proof of a fact which is perhaps not very widely known—viz., that scirrhous disease of the stomach occasionally runs a very protracted course, and extends over a period of ten, fifteen, or even twenty years. The patient in question died in 1874; he first suffered severe gastric pain in 1857.

For the first part of the history of this case I am indebted to the kindness of Dr. Wilson Fox, who was consulted by the patient in August, 1868, he being at that time fifty-five years of age.

The following are Dr. Wilson Fox's notes:—"He first felt severe gastric pains in 1857, relieved by sulphuric acid, but it continued at intervals until 1861, when it increased in severity and became attended by acid vomiting. The vomited matters were never black or bloody. Fæces at this time black but not tarry; appetite lost. In the spring of 1868, after suffering from pain, great weakness, and loss of appetite, he suddenly became faint. The stomach became distended and painful, and the pain radiated across the chest. At this time he passed tarry stools repeatedly on several occasions, and they were seen, certainly on one occasion, by Dr. Grimsdale, of Liverpool. He suffered from frequent vomiting after food. His attacks of vomiting were associated with anorexia; these attacks would last for about a week, when the appetite would return and become ravenous. The vomited matters were acid, but not frothy, nor had they even the appearance of coffee-grounds. There was no increase of pain before passing the tarry evacuations. He stated that the pain in 1861 used to be relieved by eating, and would return three or four hours after food."

Dr. Fox further noted that the patient presented at this time an appearance of intense pallor; that there was no tenderness or tumour in the region of the stomach; that there were no piles, though he had suffered from them some years ago. The diagnosis was "carcinoma ventriculi."

The patient first consulted me in November, 1870, and complained of symptoms of dyspepsia. He told me of the unfavourable opinion Dr. Wilson Fox had formed of his case in 1868, but added that he had subsequently consulted a very eminent physician in London, who had given him a more favourable opinion, which he was himself disposed to accept—viz., that he was suffering from functional dyspepsia.

He was a gentleman of very great energy both of body and mind; he was in the habit of taking very active exercise, and of consuming a large amount of food, and his chief trouble was severe pain, with flatulence and acid eructations on going to bed at night—i.e., three or four hours after his dinner.

There was no tenderness or tumour in the region of the stomach or over any part of the abdominal cavity, but he was emaciated, and had a pinched and unhealthy aspect.

A day or two after first consulting me he was seized with very severe pain, and I was sent for to see him, but being out of town he passed under the care of a homœopathic practitioner at Highgate, where he lived, and I saw no more of him until the autumn of 1873. In October of that year he called on me to tell me he was quite well, that the *fons et origo mali* (I use his own words) had been discovered. That the fact was, he had all along been suffering from gall-stones, and that two seasons at Carlsbad and a winter in Algeria had set him right. He did not mention then, what I discovered subsequently, that he had been taught to use morphia hypodermically for the relief of the stomach pain, and to this fact must be attributed much of the obscurity which appeared hereafter to hang over his case.

He passed through the winter of 1873–74 comfortably, in the firm belief that all his previous sufferings had been due to gall-stones, and that, should they ever return, he had a certain resource in the Carlsbad waters.

In April, 1874, I was asked to see his wife at Norwood, and, observing that he was not well, I was told, incidentally, that he was suffering from another attack of gall-stone, but that he knew quite well how to manage himself: he was drinking a large quantity of the Carlsbad water; and when the pain was very severe, he obtained certain relief by the injection of morphia hypodermically. I was simply referred to by his wife to know if it was right for him to have recourse so constantly to this mode of relieving his symptoms: a question which was then, and on many subsequent occasions, pertinently answered by the patient, who demanded why he should be allowed to suffer pain when an easy and safe means of relieving it was in his own hands.

I did not see him again until the end of the following month (May, 1874), when I was summoned to see him as he was passing through town on his way to the north. I found him very ill, suffering intense pain in the stomach, vomiting everything he took, and passing black motions, consisting of fluid and solid matters, the latter composed partly of broken-down scybala and partly of black gritty powder. The pulse was weak, and the tongue red and thinly covered with a brownish fur. The superficial arteries were markedly atheromatous. I asked to see the matters vomited, and found them to consist wholly of the farinaceous foods which had been given him; but on the surface of the vomit I noticed a few small patches of brownish scum, which, on closer examination, appeared to consist of mucus stained with blood. I removed these, and, together with my friend Dr. Lionel Beale, examined them under the microscope; and we found, entangled in a fibrinous coagulum, numerous large nucleated cells precisely like cancer cells.

The more urgent symptoms yielded rapidly to appropriate treatment. I limited his food at once to animal jellies and fluids, such as could be completely or chiefly absorbed in the stomach, and forbade entirely the use of farinaceous food, which would have to pass out of the stomach before they could be digested. This obvious precaution was attended with immediate and entire relief of the vomiting. The rest of the treatment consisted in the use of creasote, lime-water, hydrocyanic acid; still, also, the hypodermic injections of morphia, to relieve the severe pain; but these were now alternated with doses of chloral and bromide of potassium combined, which quieted his nervous system and procured sleep. Thus we were able to diminish considerably the amount of morphia employed. He recovered rapidly from all the symptoms, except the gastric pain, which I noticed again and again was rarely or never absent, except when it had been quieted by the hypodermic use of morphia. Under these circumstances his friends objected to accept the very unfavourable prognosis I felt bound to give, and I was repeatedly urged to adopt the gall-stone theory as sufficient to account for all his symptoms. Three or four dark-looking, irregular concretions were produced which had formerly been passed, and which we were told were gall-stones. These were submitted to

analysis, and were reported to contain no cholesterin, and "to present more the character of urinary than biliary calculi." I had the advantage of consultation with two very eminent physicians, and they both felt uncertain as to the precise nature of the case, and were both more disposed than I was to give weight to the evidence in favour of gall-stones as the "*fons et origo mali*," as the patient was fond of expressing it. At any rate he rapidly mended, and left London about the end of June for the north. About six weeks later I heard from him, to the effect that he was much better, that he had "turned the corner," and that he was about to start the following day for Sweden. His brother-in-law, however, wrote to me that "he thought him in a bad way when *not* under the influence of morphia."

The sequel of this case is told in the following report of his last fatal illness and the post-mortem examination by Dr. C. Forsenius, of Gothenburg:—

"Mr. ——, sixty-two years old, arrived at Gothenburg, in Sweden, from the little bathing-place Sârâ, on the 29th of August, 1874, in a comparatively good state of health. The sea-air and the voyage excited an unusual appetite, for which reason he took a rather copious breakfast, and ate also afterwards a good dinner. The same day, at 11 o'clock in the evening, he was suddenly affected with pain in the stomach and sickness. In the night he made a subcutaneous injection of morphia (8½), and fell asleep. I was called at 4.30 A.M., and found him then in a soporous state, with very dilated pupils, with a scarcely perceptible pulse of about 130 beats in the minute, with cold bluish hands and feet, with the belly very swelled, hard, and tympanitic. I then at once considered it to be a peritonitis from a perforating ulcer of the stomach, and ordered only to put a flannel moistened with oil and turpentine and a warm poultice on the belly. At my next visit, between 10 and 11 o'clock in the forenoon, he was in agony, and died soon, very quietly. On the 31st August, 39 hours after death, I made a post-mortem examination in company with Dr. Ewart, and we found then all signs of death, the body exceedingly meagre, the belly very swelled, the intestines covered with a viscid lymph, distended by gas, and in the upper part lively red; the ventricle, or stomach, very large and dilated, had a hole or perforation in the minor curvature, near the cardia, of round form and with rounded edges, of about the size of a sovereign, which had been covered by the underside of the liver, to which it had been lightly adherent; its mucous membrane was grayish and sloughy, with dark spots and strim of extravasated blood. The pylorus and the upper part of the duodenum were indurated and contracted, so that only the end of the little finger could be enforced in the passage, and the wall was there nearly half an inch thick. The liver was rather diminished in size, more dark and dense than usual. The gall-bladder was enlarged, as also the gall-duct (choledochus), but contained at present no gall-stone. The head of the pancreas was also somewhat enlarged and indurated as the surrounding duodenum. The heart was of diminished size and contracted, empty from blood; its mitral valve was white and a little thickened; the aortic valves were ossificated, and the aorta was dilated to the double of its natural size (aneurisma), with many small atheromatous patches on its inner side. The lungs were otherwise healthy, but had in the agony been œdematous. There was also in the serous sacs of peritoneum, pleura, and pericardium, yellow, watery exudations. He had even very large hæmorrhoidal piles yet bleeding after the death."

I am much indebted to Dr. Forsenius for this careful and excellent account of the post-mortem examination.

The issue of this case possessed very great interest for all those who had seen the patient professionally during life, and were acquainted with his medical history, and it seems to me that there are many points of general interest to be noticed in it.

In the first place, it shows that scirrhous disease of the stomach may run a very protracted course, extending over a long series of years, and that the patient may enjoy long intervals of apparently perfect health. This latter fact was strongly dwelt upon by one of the physicians whom he consulted as a counter-indication of the existence of malignant disease. Here seventeen years elapsed between the first onset of gastric troubles and the fatal illness. In the second place, we learn the striking efficacy of judicious treatment in relieving the symptoms attending this disease. The benefit derived from the Carlsbad course was remarkable, and lasted for some time. We can easily understand how a carefully restricted diet, and a daily washing out of the stomach and intestines with large quantities of warm, alkaline, aperient fluid should have the effect.

The hypodermic injection of morphia doubtless also contributed much to the patient's comparative comfort, although it at last lulled him into a false sense of security, masked important symptoms, and induced the most careful clinical observers (who had not the same advantages that I had of watching him from day to day) to hesitate to give an entirely unfavourable prognosis of the case.

The immediate cessation of the gastric irritation and vomiting on the change from farinaceous food to animal fluids and jellies which could be absorbed in the stomach, was a strong indication of the existence of obstructive disease at the pylorus, and it points to a fact that is often overlooked in practice—viz., that in some conditions of gastric or intestinal disorder, soft farinaceous foods are by no means easy of digestion.

Another point of interest in this case was the supposed existence of gall-stones as the original and sole cause of the symptoms. This opinion was put before us with so much circumstantial detail by the patient and his friends, and the success which had followed the treatment based on this opinion was pointed to as so evident; the actual passage of what were supposed to be biliary calculi; the long periods of freedom from suffering; the absence throughout the whole case of any local tumour or evident tenderness; all these facts naturally led us to give great weight to the considerations whether or not the symptoms could be thus satisfactorily accounted for. When, however, I observed the other obvious features of the case, at the time when I had the opportunity of seeing the patient daily, the constancy of the pain, except when under the influence of morphia, coming on the instant the effect of the morphia passed off, the striking change in the symptoms produced by the change of diet, the persistent appearance of black stools, and, above all, the presence of bodies, having a perfect resemblance to cancer-cells, in some fragments of mucus on the surface of the vomit,—these facts assured me that although gall-stones might coexist, or might have existed, we had to do with a case of malignant disease of the pylorus running a somewhat unusual course.

Protracted as was the course of this case, there seems to be good reason for believing that had this patient realised fully the serious nature of his malady, and been willing to remain under medical supervision and direction; had he, in short, adopted the habits of an invalid, taken only such food as was ordered him, instead of travelling about as a sound man, and eating heartily of any food he felt disposed, his life might have been prolonged much longer. As it is, I think the case an important and instructive one, as illustrating a probably not inconsiderable class of cases in which malignant disease of the stomach exists for many years before coming to a fatal issue.

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## ILLUSTRATIONS OF ANTISEPTIC SURGERY.

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### No. I.—CASES OF OPEN KNEE-JOINT.

(*Concluded from p. 134.*)

CASE 2. *Compound comminuted fracture of the head of the tibia, communicating with the knee joint; free incision of the knee-joint; transverse fracture of the patella; simple comminuted fracture of the femur; scalp wound; recovery.*—J. S——, aged thirty-four, quarryman, was admitted into Ward 16 of the Royal Infirmary on April 20th, 1875, with numerous and severe injuries, caused by masses of stone being driven upon him while engaged in blasting at a quarry a few miles from Glasgow. The injuries were all upon the left side of the body. A little below the left knee-joint there was a ragged wound, an inch and a half in length, communicating with an extensively comminuted fracture of the head of the

tibia. The patella was fractured transversely, and the knee-joint was filled with blood and air. When the joint was firmly handled a curious, almost crackling sensation was communicated to the fingers, and a frothy mixture of blood and air escaped at the wound over the tibia, in the neighbourhood of which there was also a little emphysema. The femur of the same side had sustained a simple comminuted fracture in the region of the great trochanter, the point of which appeared prominent and carried somewhat upwards. A loose fragment could be felt bulging forward against the skin just below this, and greatly increased the deformity. Over the left parietal bone there was a wound about two inches and a half long and of a curved shape. From this cut a flap of the scalp was turned downwards, the part of the bone beneath being laid bare and stripped of pericranium. This wound, under antiseptic dressings, healed by first intention, and need not further be referred to.

The wound over the head of the tibia having been enlarged, six or seven loose fragments of bone were extracted. The spray being now directed over the part, I syringed it with a watery solution of carbolic acid (1 to 20); but, although it was evident, from the facts stated above, that the wound communicated with the knee-joint, I could not succeed in driving the fluid from the one into the other. A search with the forefinger (washed in the solution) failed to find the communication, and, after repeated attempts, I was satisfied it was impossible to inject the joint through this channel. Under these circumstances I proposed to amputate, as I well knew that putrefaction would occur in the joint and fracture as matters stood; but to this the patient obstinately refused to consent. Chloroform having been administered, I next adopted the following course of procedure, also under the spray. I washed and steeped a new full-sized gum-elastic catheter thoroughly in the solution (1 to 20), and made a free incision at the inner side of the patella into the knee-joint. Along my forefinger (again carefully washed with the lotion) I guided the end of the catheter fairly into the joint, and then through it repeatedly syringed quantities of the solution (1 to 20). This distended the synovial pouches, and escaped again principally by my incision, but also, in a small but distinct stream, by the wound communicating with the fracture. There were now two external wounds—my incision and the original wound, both of which communicated with the knee-joint, with a transverse fracture of the patella, and with a comminuted fracture of the head of the tibia—a complication of injuries of the most serious possible sort. The fracture of the tibia having been again thoroughly syringed through the wound, and a drainage-tube (from a bottle in which a number are always kept steeping in the 1 to 20 watery solution) having been introduced, through the incision, into the joint, both wounds were covered with large antiseptic dressing applied in the usual way. A splint, applied along the entire posterior aspect of the limb, was the only apparatus used. Some time afterwards an attempt was made to apply the long splint in addition, but it produced great discomfort, as did also extension by a weight and pulley, and they were both discontinued. The splint used was made of poro-plastic material, and was turned up at the lateral aspects of the limb.

It would be tedious to detail fully the subsequent progress of the case, and I shall therefore content myself with shortly indicating it. On the day after his admission (April 21st), having occasion to go from home, I left orders that the dressings should remain unchanged. On the 22nd a great amount of bloody oozing was found to have soaked into the dressings. On the 24th it is noted that the patient had slept well during the previous night, and had eaten an egg and a full slice of bread-and-butter with a cup of tea at breakfast; pulse 112. Until May 2nd nothing particular occurred. His pulse continued rather quick, varying from 104 to 120, but generally being 108. He ate and slept remarkably well, and made no complaint of pain. The foot became a little œdematous. The discharge from the wounds was very slight, and, except a little pus from the very surface of each, where granulations had sprung up, was serous, at times slightly bloody, and, I need scarcely add, quite free from putrefactive odour. At this last-mentioned date the whole discharge was estimated at two or three drachms. On May 5th a small abscess, which had formed over the front and lower part of the tibia, where there had been considerable bruising and extravasation of blood, was opened antiseptically. It healed in a few days. After May 8th the dressings were changed every second day only. On the 15th I discovered an abscess in the popliteal space, which had been occasioning some pain and inconvenience. The wounds, meantime, were furnishing only a little odourless discharge. The abscess was opened antiseptically. On the 19th it is noted that the incision into the knee-joint, the use of the drainage-tube having been for some little time discontinued, was superficial, and the wound at the seat of fracture much contracted. All went well until the 24th, when, after two days of slightly increased temperature, quickened pulse, and disturbed appetite, a small abscess was found amongst the muscles of the thigh at its inner aspect and just above the knee-joint. It was opened antiseptically. This abscess continued to discharge a little thin sero-purulent material for a week or two, and then, healing, gave no further trouble. Things went on well, the patient eating and sleeping as if in perfect health, and suffering no pain, until June 14th, when he was seized with severe diarrhœa, which lasted two days. On the 16th, probably from the constant movement in using the bed-pan, hæmorrhage occurred from the wound over the head of the tibia. The dressings were at once changed, and, the bleeding having already ceased, were reapplied without any interference with the wound. It recurred, however, in a few hours more severely than at first. Being sent for, I took off the dressings (under the spray, of course), and plugged the wound, now almost a sinus, with strips of lint soaked in an oily solution of carbolic acid. These plugs were removed in four days, and bleeding never recurred. On July 28th it is noted that all the wounds were securely healed except a sinus which remained over the seat of fracture. A very deep and large bedsore, which, I am ashamed to say, had been allowed to form over the heel, also required dressing. On Nov. 4th, the bedsore having at last cicatrised, and the sinus over the head of the tibia having been for some time quite whole, I made a careful examination of the three fractures. The fracture of the patella was found to be firmly united, if not by bone, by so short and strong a ligamentous union as to render the fragments immovable. The fracture of the femur was also firm, but that of the tibia not completely so. The limb was therefore encased from the toes to the pelvis in a stiff apparatus.

*Remarks.*—A happy patient, like a happy nation, has no history. Each day is very like the preceding one; and it is noteworthy how monotonous generally is the daily record of a successful antiseptic case. The present one, however, is so far exceptional that there occurred during the course of it three abscesses and a very smart hæmorrhage. The latter was not due to any ulcerative process in the wound, for it occurred when all discharge had, as nearly as possible, ceased. I believe it was caused by the injury, during repeated movements of the limb, of some comparatively trifling arterial branch. It is curious, in looking back upon the case, to note that the discovery of each abscess, as it declared itself, gave rise in our minds to far other feelings than those with which it would have been regarded had we been dealing with a putrefying, suppurating compound fracture. On each occasion the advent of the abscess was heralded by a distinct period of feverish disturbance, and we dreaded lest this indicated the occurrence of putrefaction. The discovery of an abscess was therefore ever gladly hailed, not more as an explanation of the unfavourable constitutional symptoms than as something with which we had the means of dealing most satisfactorily. Had the fracture been a putrefying one, each abscess would simply have been regarded as an indication of the increasing gravity of the case. All the abscesses, in the present instance, contained inodourous pus, as was to be expected; and as soon as tension was removed by their evacuation, while measures were adopted to prevent putrefaction invading their cavities, the constitutional symptoms they produced at once disappeared.

The occurrence of emphysema in a wound is a subject full of interest in connexion with antiseptic treatment. While there can be little doubt that it always renders the case a more precarious one in reference to the prevention of putrefaction, my experience leads me to believe that even extensive emphysema is no necessary bar to success in this respect. When house-surgeon under Professor Lister in Glasgow, it fell to my lot to deal with the first emphysematous compound fracture to which this treatment was applied. The patient, while drunk, had fallen, and sustained a fracture of both

bones of the leg. There was a small irregular wound over the lower third of the tibia, communicating with the fracture; and emphysematous crackling was felt over all the front of the leg as high as the knee-joint. Knowing that air had freely travelled far beyond the limits to which the acid could be applied, I injected and dressed the case with no very sanguine expectations of its remaining free from putrefaction. But I was glad, next day, to find that Mr. Lister did not fully share my apprehensions. He argued that if the occurrence of putrefaction were due to atmospheric air only, then certainly the attempt to avoid it seemed hopeless. But it was quite possible that the air, which must have passed from the wound through minute and moist apertures into the cellular tissue of the limb, might by this very process have been filtered of the putrefactive organisms which it contained, leaving them arrested in the immediate neighbourhood of the wound. In such a case the injection would get free access to them, and the air beyond do no more harm than it does when driven into the general cellular tissue of the body, after passing through the ramifications of the bronchial tubes, in cases of ordinary surgical emphysema following the fracture of one or more ribs. This particular case of compound fracture did not putrefy, and healed without suppuration or constitutional disturbance. Another instructive case occurred to me four years ago. I was asked by a medical friend to remove a large fatty tumour from the neck of an elderly man, who was also the subject of severe cardiac disease. He suffered from great dyspnœa, and imagined that if the tumour (which had been twenty years in growing) were removed, he would breathe more easily. It extended vertically from a little below the thyroid cartilage to about the middle of the sternum, and the incision made for its removal measured a little over seven inches in length. The patient had been suffering for some time from general anasarca, but, under diuretics, this had greatly disappeared. No sooner was the tumour removed than we perceived that the surrounding parts both of the neck and thorax were markedly emphysematous. As dropsical fluid flowed out, the laboured breathing induced air to take its place in the open cellular tissue. The operation was performed without chloroform, and the patient, sitting in an arm-chair, bore it well. I washed the wound with a watery solution of carbolic acid and dressed it antiseptically. It was entirely healed in thirteen days, and that without the slightest suppuration or odour of putrefaction. As the operation was not performed under the spray, the condition of the wound, as regards the emphysema, was strictly analogous to the foregoing case of compound fracture. In the case which has given rise to these remarks I had something more to deal with than ordinary emphysema. A collection of air and blood existed in the cavity of the knee-joint, and had evidently passed directly and freely into it from the wound. I therefore deemed it absolutely necessary that the injection should enter the joint. The slight and limited emphysema of the soft parts in the neighbourhood of the wound was left to itself, and did no harm. A fourth case, as instructive as any of the others, is at present under my care. A gentleman was admitted three weeks ago, as a private patient, into the infirmary. He had slipped a few hours before on a slide on the pavement (there being a keen frost), and fractured both bones of his right leg. The fracture of the tibia is a very oblique one, and the lower end of the upper fragment very pointed. This was observed at the time of the accident to be protruding through the skin about three inches above the ankle. It was, however, soon replaced. On admission, the whole leg was found to be highly emphysematous, but the condition was most marked in its upper and front part. The house-surgeon thoroughly injected the wound (which was a very small one) with 1 to 20 watery solution of carbolic acid under the spray, and dressed it antiseptically. The dressings were changed by myself on the following day, again on the sixth day, again on the eleventh day, and again to-day (the nineteenth day). I found to-day on the dressing a small stain of reddish watery fluid, not bigger than a shilling; and the wound almost healed. Constitutionally the patient has progressed exactly as if the fracture were a simple one. The emphysematous crackling in the neighbourhood of the knee was still appreciable after six days had elapsed, but has now entirely disappeared.

One other point appears worthy of notice in the case of J. S——; namely, the fact that firm union was obtained in the factured patella. It has been observed before that when this fracture coexists along with a fracture of the femur, the shortening consequent upon the latter may entirely counteract the tendency to separation of the fragments of the former by the action of the extensor quadriceps femoris muscle. In the present case, although no means were taken to prevent it, there was hardly any separation; and the two fragments of the patella are now once more united into one firm rigid bone, although with a distinct transverse groove across it.

CASE 3. *Compound comminuted fracture of the patella, with free wound of knee-joint; no suppuration; death in ten days.*—Mrs. T——, aged seventy, was admitted on the evening of the 26th of October last, having sustained severe injuries from a fall down stairs. She was a feeble, small old woman, with fingers and toes knotted and twisted by chronic rheumatism. Her body presented in different parts several comparatively insignificant bruises and abrasions; but her right knee was the seat of a most serious injury. A lacerated wound extended right across the front of the joint from one condyle of the femur to the other, measuring a little over 4½ in. in length. Through this could be seen the smooth condyloid end of the femur, and the finger detected that the patella was fractured transversely, the fragments being widely separated. She was suffering severely from surgical shock.

The knee-joint, wound, and undermined skin in the neighbourhood were carefully and repeatedly injected with a watery solution of carbolic acid, and the usual antiseptic dressings applied under the spray. Three antiseptic stitches were inserted, and a drainage-tube introduced into the joint. The limb was placed on a large posterior poroplastic splint, which embraced firmly its lateral aspects, and supported on a pillow. With the aid of an opiate she dozed a good deal during the night, but had no sound continuous sleep. On the 27th she felt easy. There was a great quantity of bloody oozing from the limb. Ordered a little brandy. Pulse 96; temperature 100·6°. On the 28th it is noted that she had slept (with an opiate) soundly from 4 A.M. to 7 A.M., and had dozed a good deal during the day. Pulse 94. Morning temperature, 100·6°; evening, 99·8°. On the 29th she complained of pain in the region of the hip; but it had passed off by night. The wound was dressed. It was free from tenderness, swelling, and redness, having much the same appearance as when dressed on the night of admission. The discharge consisted of a large quantity of bloody serum, quite free from putrefactive odour. In the afternoon diarrhœa commenced, with great pain in the bowels, over which laudanum fomentations were applied. She took considerable quantities of milk and chicken-soup. Pulse 104. Morning temperature, 101·2°; evening, 100°. On the 30th it is noted that she had slept well during the night, and complained of no pain. The discharge was still a reddish serous fluid, and quite sweet. The diarrhœa, in spite of the measures used to check it, was becoming serious. The stools were dark and watery, and there was great pain in the bowels. Had taken quantities of nourishment during the day. Belly still fomented. Pulse 102; temperature 100°. On the morning of the 31st the patient felt much better, and had slept well. She complained of no pain either in the knee or in the bowels, which had only acted once during the night. Ate a slice of toast and a boiled egg, with a cup of tea, at breakfast. The diarrhœa returned at midday, the stools being very frequent throughout the rest of the day. Ordered starch and laudanum enema. Pulse 102; evening temperature 100·4°.—Nov. 1st: Did not sleep well during the night. Diarrhœa continued; discharge much less, entirely serous, and quite sweet. No tenderness, redness, or swelling of the wound. Vomited occasionally a mouthful of thin, watery, tasteless fluid. Ordered white-of-egg beat up with a little brandy three times a day in addition to her milk, soup, &c. Pulse 104. Morning temperature, 100·2°; evening, 99°.—On Nov. 2nd the diarrhœa still continued. She seemed, however, pretty well, and took a good deal of nourishment. She had slept indifferently during the night. Temperature in the morning, 99·6°; pulse 100. Complained of some pain in the knee, which was dressed in the evening. The discharge still serous and sweet, and much diminished in quantity. Temperature 99·6°; pulse 106. On the 3rd it is noted that she had slept well during the previous night. The pain complained of on the previous day was gone.

Bowels not so loose; but vomiting occasionally. Pulse 112. Morning temperature, 98·4°; evening, 100·2°. On the 4th she was much weaker. Bowels still loose, and vomiting greatly increased; indeed, she vomited all that she took. Had no pain in the knee, which was dressed, and presented the same characters as at former dressings, with the exception that firm pressure just above the outer extremity of the wound caused a drop or two of greyish, purulent-looking, odourless fluid to escape from the subcutaneous tissue. On the 5th she rapidly and rather suddenly began to sink; continued to vomit everything, even iced champagne; became unconscious, and died in the afternoon.

Permission to make a post-mortem examination of the body was refused, but I examined the knee-joint in company with Dr. Foulis, pathologist to the infirmary, on the following day. We found no pus, or indeed discharge of any sort, in the knee-joint, the cartilages of which were white, clean, and smooth. There was a transverse comminuted fracture of the patella, the surfaces of which were injected, but had not granulated. Indeed, nowhere in the whole wound was there the slightest trace of granulation. The synovial membrane appeared healthy; its edges being strongly injected, but not swollen. A small quantity of thin, grey, inodourous, purulent material was pressed out from the external angle of the wound, just as was done two days before death. There was no œdema at or near the wound, and a complete absence of putrefactive odour.

*Remarks.*—This case, although it ended in death, is to my mind as successful an instance of antiseptic treatment as either of the preceding cases; and I doubt not that recovery would have taken place had we not had so very weakly a patient to deal with. The appearances presented by the joint after death indicated just such a condition as one aims at by antiseptic treatment; and, to anyone unacquainted with such treatment, they must have appeared inconsistent with the fact that the injury had been inflicted ten days previously. I have, in the case of very old people, more than once seen diarrhœa of a most serious and obstinate character ensue, apparently as a consequence of surgical shock, after severe injury; and to the exhausting effects of such an attack the death in the present instance may, in all fairness, be mainly attributed.

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ABRIDGED NOTES OF

## CASES OF MENINGO-MYELITIS.

BY THOMAS STRETCH DOWSE, M.D., F.R.C.P.E.,
PHYSICIAN-SUPERINTENDENT TO THE CENTRAL LONDON SICK ASYLUM AT HIGHGATE.

THESE cases are typical, and come under the class of low inflammatory changes produced by, or the result of, debauchery, privation, exposure, and the excessive use of alcohol.

CASE 1.—A. C——, aged nineteen, a prostitute, was seized with rigors and general malaise on the 20th of November, 1875. In about twenty-four hours the upper extremities were extremely painful and the skin so sensitive that she could scarcely bear anything to touch them; they were heavy, and power of movement was limited. On the 27th of November she was admitted into the Central London Sick Asylum, and presented the following signs and symptoms:—Great prostration; inability to keep the head erect. Complained of feeling sore all over. The pupils were widely dilated; but intolerance to light was not marked. There was a convergent squint, and vomiting was persistent. The pain in the back of the head was agonising, as well as down the spine. The slightest movement of the head from the pillow caused her to yell out with the pain. There was no rigidity of the muscles of the neck or tonic spasm to draw the head out of the median line. The intellect was not impaired; complete control over sphincters. The temperature at this time was normal; pulse 80; urine 1010, free from blood or albumen. On the 28th her condition had altered but little, save that the upper extremities had regained their normal functions; but the lower limbs had now become paretic, with muscular hyperæsthesia and cutaneous anæsthesia. There were no convulsive or reflex movements. On the 30th, the day before her death, the features became pinched and livid. Pulse 160; respiration and temperature normal. The urine was retained, and the anal sphincter relaxed. Wandering delirium supervened, and she died on the morning of the 1st of December.

At the post-mortem examination, upon removing the brain and medulla, the seat of the disease was found to be localised to the posterior border of the pons, the anterior part of the medulla oblongata, the inferior vermiform process of the cerebellum. Over these parts was a mass of fibro-corpuscular material firmly organised to the cerebral substance. In some places it was essentially fibroid, in others colloid, of a yellowish colour. The pia mater of both brain and cord was extremely hypervascular.

CASE 2.—R. S——, aged twenty-one, a young woman of dissolute habits and intemperate, was seized on Sept. 27th, 1875, with general malaise, succeeded by persistent occipito-spinal pain. There was hyperæsthesia of the whole body, but more particularly of the neck, cervico-dorsal spine, and upper limbs, constant vomiting, with tendency to delirium. On admission into this asylum on Oct. 8th, 1875, she was in a dull, listless condition, and appeared to possess scarcely any voluntary power; she could neither stand nor sit up in bed. The bowels were constantly confined, but she had control over the sphincters. Temperature normal; pulse 84. Any movement of the head caused her intense pain, and when made to sit up in bed or stand, vomiting was the immediate result, and in this position peculiar involuntary gyratory movements of the head took place. The upper and lower extremities could be moved in an equal degree to a limited extent; the act of movement was accompanied with pain; there was the subjective sense of heaviness in all the limbs, cutaneous anæsthesia, and muscular hyperæsthesia. On Oct. 15th she began to improve; the pain in the occiput became less, and voluntary power gradually returned in like manner, with sensation. The quasi-gyratory movements of the head ceased, and on November 3rd she got up by herself, but her walk was ataxic, and she could not balance the body with the eyes closed. She was discharged on Dec. 27th quite well. Urine free from albumen.

CASE 3.—Margaret C——, aged forty-eight, a woman of extremely intemperate habits, says she always flew to drink when in trouble, and that her illness commenced upon the nerves. Whilst walking she became giddy, but never fell. There was intense pain over the head, but more particularly in the occipital region. Vomiting was very persistent, and especially so with movement of the body. On admission she was scarcely able to walk, and staggered as she tried to do so. Even raising the head from the pillow caused her to feel giddy and vomit. None of the cranial nerves were involved more than a partial ptosis of both lids (a not uncommon accompaniment of cerebral change from alcoholism). There was muscular hyperæsthesia and cutaneous anæsthesia. When the limbs were moved she experienced great pain, and occasionally she complained of flying muscular pains simulating rheumatism. The subjective sense of heaviness was much more marked in the lower than in the upper extremities. She continued in this state for nearly a month. At times she would be lethargic, and with difficulty roused for three or four days together; then the intellect would brighten up, and the opposite state pertain. The urine was scanty, loaded with triple phosphate and urate of ammonia, but free from albumen. The bowels were obstinately constipated, and the fæces free from bile temporarily upon several occasions, yet no signs of jaundice were ever apparent. The tongue was persistently clean, and the temperature and pulse normal. An interesting point in reference to the vomiting was this, that the food taken one day would be vomited the next totally undigested. There was marked dysphagia at times; the food would enter the pharynx, and be forcibly ejected even through the nostrils. At other times she would swallow perfectly well. On Dec. 1st she had improved sufficiently to get out of bed, and on Dec. 27th she was discharged cured.

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THE SIR JOHN GRAY MEMORIAL.—The form this memorial will take has not yet been determined, as the committee are waiting to ascertain the probable amount of funds to be placed at their disposal. The subscriptions have already reached £1500.

# NOTES ON THE SURGERY OF THE GENITO-URINARY ORGANS.

BY FURNEAUX JORDAN, F.R.C.S.,

PROFESSOR OF SURGERY AT QUEEN'S COLLEGE, BIRMINGHAM; SURGEON TO THE QUEEN'S HOSPITAL; CONSULTING SURGEON TO THE WOMEN'S AND WEST BROMWICH HOSPITALS.

## I.—ON THE RETENTION OF BOUGIES INSTEAD OF CATHETERS FOR THE CONTINUOUS DILATATION OF STRICTURES.

AMONG the various methods of treating stricture of the urethra, that of continuous dilatation is justly held in much esteem. In a few days, and with no risk, a very tight stricture may be dilated so as to permit a large instrument to be passed; hence the treatment may be said to combine the safety of gradual dilatation with the rapidity of incision or rupture. It is not suited to every case. It will not, for example, take the place of internal division in strictures anterior to the scrotum, nor of external division in persistent fistulæ. In a large number of tight—perhaps very tight—old and neglected strictures, with no great irritability or resiliency or attendant induration, the surgeon is glad to get in a fine instrument and leave it in.

Although it may require much patience and skill to introduce the finest bougie, the general custom is to withdraw it and attempt the introduction of a catheter. The effort occasionally fails, and much valuable time is lost. Now, in such cases I have for several years *kept in the fine or filiform bougie, and directed that the urine should be passed from time to time by its side or around it.* In every instance in a large number of cases this has been easily done, micturition, as a rule, actually being easier and in a larger stream than when the bougie is out. In twenty-four hours a goodly-sized bougie (not catheter) can be introduced. On the third day I usually put in a No. 12 or even No. 13 bougie or catheter. It is of course in the earliest stages that the superiority of the bougie over the catheter is seen.

The advantages of the treatment I have just described are these:—A more rapid and complete dilatation, due to the hydrostatic pressure of the urine along the exterior of the bougie; a bougie is more easily introduced than a catheter; when the finest bougie is once in, it need not be taken out—no slight boon; the ordinary acts of micturition are preserved; every kind of apparatus for keeping the bed dry, or for any other purpose, may be dispensed with.

## II.—ON THE RESULTS OF CONGENITALLY SMALL URINARY MEATUS IN MALES AND FEMALES.

These results I briefly pointed out a few years ago. Further experience teaches me that the congenital defect in question is a frequent cause of otherwise obscure urinary ailments. The natural meatus in the male extends from the centre of the glans to near the meatus. An opening in the centre of the glans a line or two in length, looking as if it would scarcely admit a pin's head, is practically a stricture, and may give rise to almost all the results of stricture. I not infrequently meet with the cause and the effects. In boys, a common result is cystitis simulating stone in the bladder. Boys, however, often escape notable trouble; as men they are not let off so easily. With the cares, indigestion, gout (disguised or open), and other ailments which increase the acidity of urine, there come one or several of the results of stricture. One such effect is urethritis, which, by continuous extension, may lead to prostatitis, or cystitis, or epididymitis. There are some surgeons who, under these circumstances, would affirm that the urethral inflammation had been caused by the contact of some noxious fluid. I will not here discuss the merits or demerits of a policy of uniform incredulity. My answer is this: Often in cases of diminutive meatus the bladder is affected first, then the prostatic urethra, then, perhaps, the inflammation may extend along the vas deferens, setting up consecutive orchitis, and from first to last there is no urethral discharge. I remember that in one week there came under my notice, by curious coincidence, four cases of epididymitis having no other cause than small meatus, and resisting all treatment, except the incision of that aperture.

Very frequently the symptoms are confined to the bladder. Frequency of micturition, supra-pubic pain, mucus or blood in the urine, are, singly or combined, the subject of complaint. It is remarkable how single symptoms of cystitis may exist, especially when due to the milder causation of a small meatus. A clergyman was sent to me with a very obstinate ailment, but it consisted of one symptom only, supra-pubic pain. A young man during a period of ill-health, marked by great acidity of urine, had one bladder symptom only, hæmaturia. Both men had a small meatus.

A diminutive urethral orifice aggravates and prolongs a gonorrhœa, or gleet, or stricture, and their ordinary sequelæ.

The treatment I adopt for small meatus and its resulting ailments is an incision downwards towards the frænum made with a concealed bistoury. The result has been in all cases—a large number—successful. The success is not always rapid, especially in old-standing cases of cystitis; but sooner or later relief follows.

It is natural that the shorter and simpler urethra of females should less frequently be associated with vesical distress. Now and then, however, both in young girls and women, we meet with cystitis of a seemingly inexplicable character. In such cases I have found a markedly small meatus. Whether the urethra itself has been smaller or not I have not been able to decide, but I strongly suspect that the mischief lies mainly at the orifice. In dilating the urethra with the finger there is a feeling at the meatus as though a thin thread were tightly tied round even a small finger. It would seem that when the urinary outlet falls below a certain (perhaps a relative) size, bladder trouble begins. A small meatus in women, as in men, may give rise to few or no symptoms if the general and uterine health be good. But in women, as in men, a constricted urinary outlet is often, not the last, but one of the feathers which break the camel's back. Hysteria is probably present in some of these cases, but it is not likely to affect little girls, and it does not explain all the bearings of the cases of adults. Hysteria is often a lofty and ostentatious fabric, but underneath it there is a real, though a slight, pathological or physiological foundation. I have met with the cystitis now spoken of oftener, but not invariably, in young girls and in adults than in young women. The greater acidity of urine in children, and the greater "worry" of women, may perhaps explain this.

The symptom which in females overtops all others is frequency of micturition; other symptoms may be slight or absent. In obscure cystitis in women it has occurred to several surgeons to dilate the urethra with the finger or a dilator. For several years I have adopted this treatment with fair success. In some cases it fails or succeeds only for a time. In future, I intend in these cases to incise with moderate freedom the meatus, and, if need be, the adjacent portion of the urethra. I purpose making the incision upwards with a concealed bistoury, the blade being projected after the bistoury is introduced to a fixed and definite degree, and drawing the blade along the whole urethra. The urethra will be divided only where it is contracted, if indeed it be contracted at all.

## III.—A SIMPLE OPERATION FOR THE RELIEF OF CONGENITAL CURVATURE OF THE PENIS, WITH HYPOSPADIAS.

Cases of imperfect development of the spongy body of the penis, in which there is more or less hypospadias, curvature of the penis, and attachment of the scrotum to the frænum, are not very rare. When the curvature is markedly present during erection, sexual union is impossible. A case of a severe character was brought to me where marriage had been a rite only, not a fact—where many surgeons had been consulted and many kinds of advice had been given and taken, but in vain. I regarded the "dissecting operation" as complicated in method and unsatisfactory in results, and as necessarily increasing the hypospadias, and thus lessening the chances of fertile marriage. Having explained to the patient, without giving too hopeful a view of the result, the nature of the operation I am about to describe, he readily gave his consent. I cut a large wedge-shaped slice out of the centre of the dorsum of the penis (see woodcut), and freely removed portions of the cavernous bodies. I assumed, and justly, as the event proved, that the portions of the cavernous bodies left below the excision would suffice to preserve the power of erection. I put in a few deep stitches, and directed the penis to be

kept against the wall of the abdomen—a now possible and easily maintained position. The bleeding at the time, and some recurrent bleeding, were not more than is to be expected in severe wounds of the penis. The stitches cut their way out before union was obtained; but strapping

and position were followed by an excellent result. The man's surprise at the new position of his penis was even greater than his delight. He left the hospital, saying, to those interested in his case, that his penis during erection "turned upwards instead of downwards."

### IV.—A MORE EFFECTUAL METHOD OF APPLYING IODINE TO THE INTERIOR OF CERTAIN CYSTS.

I have found that there are in practice two classes of scrotal hydroceles, in which the ordinary methods of treatment are either difficult to use or uncertain in their result. In boys and men there are occasionally encysted hydroceles of the testis, or the cord, which continue to increase in size, or in which treatment is urgently requested. In such cases, except in early infancy, acupuncture or the use of a fine trocar often fails to cure. The walls of the cysts are usually thin, and collapse so much when their contents are withdrawn that the injection of a fluid is uncertain. The end of the canula may be outside the cyst, and the iodine solution be consequently injected into the connective tissue at its exterior. In such cases the following is a reliable method of treatment:—The cyst being well isolated, made tense, and brought near the surface, I pass through its centre a stout needle, armed with silk, and leave the threads hanging. The fluid quickly oozes away, especially if a little traction be made on the threads. I then, at one opening, wet the threads with iodine liniment (liniment because the quantity required is so limited) and draw the threads so as to leave moistened portions within the cyst. A little gentle friction will help to spread the iodine thoroughly over the lining membrane of the cavity. An hour later freshly moistened portions may again be drawn through if the cyst be large, or if other methods of treatment have failed. On the other hand, in a very small cyst a single thread, moistened and kept in one hour, will suffice.

Another class of cases are those of simple vaginal hydrocele, in which the injection of iodine and other ordinary methods of treatment are unsuccessful. An interesting case will best convey what I wish to say. A young man had a moderate-sized hydrocele. Trocar puncture, and acupuncture repeated a few times failed, and consequently iodine tincture (undiluted) was injected. In a few weeks the collection had reached its old size. A silver-wire seton was then put in; while in, the cyst remained empty, but its removal was followed by reappearance of the fluid. I then, at three o'clock, passed through the cavity a double silk thread at two spots. In a few minutes, when all the fluid had oozed out, I drew the threads, moistened with iodine liniment, into the serous cavity. I directed him to repeat the process in an hour. He was so anxious to get well—he was shortly to be married—that he moistened the threads four times in six hours. At midnight the effects had become so sharp that he was glad to remove the threads as he had been directed. He remained at home one day only, and was shortly and permanently well.

I venture to believe that no kind of hydrocele will resist this method of applying iodine, and consequently that the setting up of suppuration, even as a last resort, can rarely be necessary.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

## UNIVERSITY COLLEGE HOSPITAL.

### THREE CASES OF EXTENSIVE EPITHELIOMA INVOLVING THE LOWER JAW; REMOVAL BY SECTION OF THE BONE AND THE GALVANIC ECRASEUR.

(Under the care of Mr. CHRISTOPHER HEATH.)

THE operation that was performed in the subjoined case was, it will be noticed, different from that which was done in the two preceding cases, and quite novel. In this case the chin was literally sawn off, with the happiest result. The wound healed fairly well, and the patient rapidly gained strength.

For the notes of the case we are indebted to Mr. A. P. Gould, surgical registrar.

CASE 3. *Epithelioma involving the chin and lower jaw; removal of growth by section of bone and galvanic écraseur, without opening the mouth; recovery.* — T. E——, aged fifty-five, a fisherman, admitted Nov. 6th, 1875. In February, 1872, he had an epitheliomatous growth on the lower lip removed at the Monmouth Hospital, and he recovered completely from the operation. But twelve months ago—November, 1874—he noticed a small hard lump under the lower jaw, to the left of the symphysis; this lump gradually increased in size, and in August, 1875, it ulcerated at one spot; poultices were then applied, but more ulcers appeared. From that time the growth rapidly increased, and was the seat of constant pain.

On admission, the patient was a dark, healthy-looking, strong man, though he stated that he had lost flesh lately. There was a rounded tumour fixed to the left side of the body of the lower law, about the size of a small cocoa-nut, measuring six inches by five and a half, extending two and a half inches to the right and three and a half inches to the left of the middle line, reaching down to the hyoid bone. Most of the skin over the tumour was adherent to it, but it was free at the edge; the surface was lobulated, firm, and

elastic; and on the under part there were six openings in the centre of projecting nodules, from which a stinking fluid escaped. There was a linear cicatrix on the left side of the lower lip. No part of the growth could be detected from the mouth; the alveolus of the jaw was not enlarged. There was no dyspnœa or dysphagia.

Nov. 10th.—The patient was put under the influence of chloroform, and Mr. Heath proceeded to remove the tumour. He first made a curved incision over the back of the tumour beyond the line where the skin was adherent, and dissected this off the tumour quite readily. He then united the ends of this incision by a straight cut along the body of the jaw. The body of the jaw to which the tumour was attached was then sawn through below the alveolus, and without wounding the mucous membrane of the mouth. An additional piece of bone was then removed from the left angle of the jaw with the bone forceps. The galvanic écraseur was then applied in the lines of incision, and the mass removed in nine minutes. The tissue about the hyoid bone was white and opaque, and was therefore freely cauterised with the heated écraseur. The submaxillary and sublingual glands and the hyo-glossus muscles were freely exposed in the wound, and looked healthy. The wound was washed out with solution of zinc chloride, twenty grains to the ounce, and lint dipped in this was applied, and kept in place by cotton-wool and a bandage.

The patient slept well through the night, being perfectly free from pain, but only able to swallow liquids; the next morning his temperature was 100° F.; pulse 96. In the evening the lint was removed from the wound, and a dressing of carbolised oil applied. His temperature gradually fell, and on Nov. 15th it was 98·3°; pulse 84. The submaxillary gland and the tissue about the hyoid bone were seen to be sloughing; the upper part of the wound was granulating; complained of headache. The next two days an oakum fomentation was applied to hasten the separation of the sloughs, and on Nov. 18th the surface was quite clean except over the submaxillary gland, and the headache quite gone. On the 22nd the wound was dressed with red lotion; the last slough had come away; the wound was two-thirds its previous size. Patient could swallow solid food well. On the 26th five skin-grafts were put on. On Dec. 2nd twelve more were put on; the granulation was much slower over the site of the submaxillary gland than elsewhere. On Dec. 8th the wound was about one-third the size it was originally; the granulations were pale and flabby, edges firm and rather callous; to be dressed with a solution of nitrate of silver, two grains to the ounce.

The wound continued to heal well, and the patient gained strength and lost all pain, which had not returned since the operation. There was no appearance of any recurrence of the growth several weeks after the operation. The patient went home on Dec. 23rd with the wound nearly healed.

*Examination of tumour* (by Mr. Gould).—"The tumour is very firmly adherent to the section of the body of the jaw, but the bone looks healthy, the line of it being unbroken. On cutting into the under surface of the tumour, a cavity as large as an ordinary apple is opened, full of fetid ichorous fluid with irregular walls, in which are six sinuses. Examined microscopically, the growth is seen to be a typical example of globular epithelioma; this tissue extends quite to lower edge of mass removed (by hyoid bone), but is half an inch from the surface in front (where attached to jaw)."

This, though a formidable-looking case, was a remarkably favourable one for operation, the disease, although extensive, involving none of the lymphatic glands at the angle of the jaw or in the neck. By sawing off the chin, without opening the mouth, the whole of the bony attachment of the growth was isolated, and the subsequent removal of the soft tissues down to the hyoid bone with the galvanic écraseur was entirely bloodless. The patient made a thoroughly good recovery, and it may be hoped has been effectually relieved, at least for a long time.

## ROYAL FREE HOSPITAL.

### ACUTE URETHRITIS; RETENTION OF URINE; SUPRA-PUBIC ASPIRATION; RECOVERY.

(Under the care of Mr. WILLIAM ROSE.)

For the notes we are indebted to Mr. Cecil Curwen, house-surgeon.

T. B——, aged twenty, came to the out-patient's department on January 3rd, at 2.30 P.M., suffering from gonorrhœa, and complaining that he had been unable to pass any water for upwards of twenty-four hours. He first noticed a discharge from urethra about a fortnight before this, and for the last week he had noticed that his stream got gradually smaller, until finally it stopped altogether. The patient at this time was in great pain, constantly straining but passing nothing. A physical examination showed a copious discharge of pus from the urethra, and a bladder that was much distended and prominent, the area of dulness extending nearly up to the umbilicus. Pressure caused great pain. The patient was admitted, and ordered thirty minims of the tincture of opium, to be followed, after a short interval, by a hot bath. After this he passed a few drops of urine but no stream.—4.30: Fears being entertained that his bladder might give way, and it being thought unadvisable to pass a catheter on account of the specific inflammation of the urethra, the fine needle of the aspirator was inserted into the bladder immediately above the pubes, and urine, slightly ammoniacal, to the amount of thirty-eight ounces, was drawn off. Immediate relief followed. Ordered a full dose of castor oil, and to be put on an alkaline and purging treatment. At 9 P.M. he was sleeping.

Jan. 4th.—At 10 A.M. patient complained of great pain, and the bladder was distended, but not so much as before. The patient succeeded in passing a small quantity of water, which relieved him. There was copious discharge from the urethra, and much scalding. At 2.30 the bladder was again aspirated, and thirty-four ounces of urine were drawn off. At 4.30 he was ordered a hot bath, and managed to pass some water in it. At 9 his bowels had been freely opened, and he felt comfortable.

Next day he was able to pass his water, his bladder being seemingly empty. His urethra was still discharging freely. His stream was small, but did not scald so much. On the 6th and 7th he continued to improve, the stream getting larger, and the discharge and scalding less. He continued to take a hot bath night and morning, and was kept on low diet, and freely purged. On the 8th, he passed his water freely, there being no discharge or scalding, and on the 9th a No. 4 silver catheter, followed by a No. 7, was passed without difficulty, and the patient was pronounced convalescent, and fit to be discharged.

## DEVON AND EXETER HOSPITAL.

### SEVERE DYSPNŒA; TRACHEOTOMY; EMPLOYMENT OF A LONG INDIA-RUBBER TUBE; RECOVERY.

(Under the care of Mr. CAIRD.)

THE interesting features in this case (for the notes of which we are indebted to Mr. H. Gordon Cumming, house-surgeon) were the obscurity of the cause of the symptoms, the coincidence of their disappearance with the decrease in the size of the thyroid, the disappearance of the latter after the severe hæmorrhage, and, lastly, the marked relief afforded by the long india-rubber tube. It was found that brushing the interior of the tube with olive oil considerably aided the passage of secretion.

J. P——, aged sixteen, was admitted Nov. 8th, 1875. He had always been delicate, and had suffered from shortness of breath on exertion, but was not subject to cough. Three weeks ago he first noticed a difficulty in breathing, which he fancied came on as the result of a cold, and, as it increased, he was compelled to seek advice. He gradually became worse under treatment, and was sent to the hospital.

On admission he was a tall, thin, anæmic lad, with anxious expression, and dusky appearance of face. Respiration was quick and very laboured, and there was inability to remain long in the recumbent position. The thorax was drawn in to a remarkable degree at each inspiration along the line of sternum and costal cartilages, and there was also great retraction of the epigastrium, whilst the inspiratory act was accompanied by a peculiar harsh noise. On auscultation, very little air was heard to enter the lungs, and the respiratory sounds were indistinct, but no dulness was audible on percussion. The heart sounds were normal, and the pulse quick and very feeble. The thyroid gland was much enlarged, both laterally and at the isthmus, which felt somewhat tense. Digital examination of the pharynx and upper part of larynx revealed nothing that could at all account for the dyspnœa.

He was placed under medical treatment in a separate ward, with a warm temperature and an atmosphere moistened with steam vapour, but the symptoms increased, and towards evening it was manifest that unless more active measures were adopted he would speedily die.

Chloroform was administered, and Mr. Caird opened the trachea immediately above the enlarged isthmus of the thyroid. The ordinary silver tracheotomy tube was inserted with but little or no amelioration of the patient's state, and, acting on the experience of a former case, in which very marked relief was at once afforded by the use of a long india-rubber tube, the following treatment was adopted:—A portion of a large-sized Thompson's india-rubber catheter was passed through the silver canula, and on leaving this and passing into the trachea, the catheter met with a slight resistance, which was easily overcome. It was now almost at once evident that the patient had derived considerable benefit from the longer tube, small though it of necessity was.

On the second day after the operation there was a severe hæmorrhage from a vessel in the thyroid body, and this, after some difficulty, was arrested by the actual cautery.

The silver tube was now withdrawn over the flexible catheter, and then in the place of the latter was introduced a piece of india-rubber tubing about five inches long, and with a bore the size of a No. 8 catheter, for it was feared that the chafing of the metal might induce further hæmorrhage from the cauterised spot, and this, in the patient's already weakened state, must certainly have proved fatal.

The boy's state improved, and at the end of a week the enlargement of the thyroid had quite disappeared.

The india-rubber tube was withdrawn at the end of three weeks, and the wound dressed. By the end of December all symptoms of dyspnœa had disappeared, and, with the exception of a slight hoarseness and being weak, the lad has quite recovered.

## HÔPITAL ST. LOUIS, PARIS.

### HERNIA INTO THE ILIAC FOSSA ACCOMPANYING AN OLD INGUINAL HERNIA; AUTOPSY.

(Under the care of M. PÉAN.)

THIS form of hernia was met with at the autopsy of a patient, not having been diagnosed during life, and its extreme rareness justifies its publication, being only just mentioned by the standard authors.

M. B——, sixty-five years of age, sick nurse, was admitted on Jan. 3rd, with symptoms of strangulated hernia. She had been affected with this infirmity for seventeen years, but the size of the tumour had considerably increased in the last six months. She had always been able to reduce nearly the whole amount of intestine, but on the eve of her admission into the hospital the hernia had come down more than usual, and she was unable to return it again. She passed an extremely bad night, vomiting all the food she had taken at dinner, and was brought into the ward at eight in the morning.

On entering the hospital the patient was extremely agitated, and complained of strong pains in all the lower part of the abdomen, especially on the left side, which was the seat of the hernia. The skin was slightly distended, and painful upon pressure. Pulse 120; temperature 99·6° F. The tumour extended from the internal extremity of Poupart's ligament to the anterior and inferior spine of the ilium. Its breadth at its internal extremity was two inches, and four inches at its external extremity. M. Péan attempted the reduction of the hernia while the patient was held with her head downwards, but without success. Later in the day the house-surgeon tried while the patient was in a bath, but was not more fortunate.

Jan. 4th.—This morning M. Péan decided upon operating. The woman had vomited fæcal matter several times during the night. Pulse 132; temperature 100·4° F. The operation was performed in the usual manner, and the intestines having been put back into the abdomen, the wound was brought together by a metallic suture. The patient expressed herself relieved after the operation, but later in the day the symptoms declared themselves again, and the patient continued to vomit fæcal matter.

5th.—The patient had passed a most restless night, having vomited almost continuously. Temperature 102·6° F.; pulse 132. Died at one o'clock in the day.

*Autopsy, forty-five hours after death.*—On examining the wound, a portion of the intestine was found to have dissected its way in between the peritoneum and the aponeurosis of the iliacus muscle, and to have lodged itself in the iliac fossa, and in this position it was strangulated by a strip of the mesentery, which had rolled itself round the bowel at the entrance of the sac, and which accounted for the continuance of the symptoms of strangulation after the operation. The two sacs were found to communicate.

# Medical Societies.

## MEDICAL SOCIETY OF LONDON.

THE whole time of the meeting on the 10th inst. was occupied by the adjourned discussion of Dr. Lauder Brunton's paper "On the Physiological Action of Alcohol." The interest in the subject had evidently not abated, but rather augmented, as there was a very large attendance of fellows and visitors, who did not separate till a late hour; one of the features of the evening being Dr. L. Brunton's clear and lucid answer.

Dr. MILNER FOTHERGILL, in reopening the discussion, after mentioning several points treated by the author of the paper, said he himself considered alcohol in small quantities of great use in some conditions. He thought it did not supply any great amount of food, though it must in part do so, as it is oxidised in the body. In cases of convalescence it enabled the patient to enjoy his food as he would not otherwise do. He deprecated malt liquors when flat, and dwelt on the practice of giving alcohol in hæmorrhage, which, he remarked, increased the flow of blood by dilating the arterioles.—Dr. LUCAS coincided with the paper in the general mode of dealing with the subject.—Dr. DRURY said that a stomach habituated to alcohol does not respond to food without it, but this he considered a form of disease.—Dr. CRISP began by saying he was a tetotaller himself, but still considered alcohol to be sometimes of great use. It does not improve digestion, he asserted, in a man not accustomed to it, and would only aid digestion when the stomach was used to it; therefore it was of importance to study the habits of patients. He mentioned cases of brewers treated successfully by Mr. Tyrrell with their accustomed amount of stimulants.—Dr. SEMPLE, after regretting the absence of Dr. Richardson, said he himself in early life had been taught to give alcohol in some cases, but carefully to abstain from it in others; as, for instance, in hæmorrhage, owing to its stimulating action on the heart and arteries. This held good, he thought, in cases where the bleeding might be arrested mechanically (this he illustrated by two cases of Dr. Richardson's, and one of his own); but in hæmorrhage, after delivery, when the patient was bleeding furiously, he would himself give brandy at once. He thought, however, the efficacy of alcohol to be overrated, and mentioned some cases of typhoid in the *Dreadnought* where no alcohol was given, but a low diet ordered, though he would have administered it at once had there been any sinking. He considered the medical man should watch for the moment to give it. In delirium tremens he did not believe it so necessary as is generally supposed, and substantiated this statement by other cases which had occurred in the *Dreadnought*. Children, he said, in the country do not require alcohol, but the confinement of the atmosphere of town renders a small amount necessary for them.—Dr. HARE very justly quoted "in medio tutissimus ibis" as a good rule to act upon. He dwelt on "fashionable remedies," such as, some time ago, antiphlogistics, and, later on, stimulants, and said he was glad to see the tide running a little in the old direction, and alcohol not always used, as its effects had been very baneful for some years. He had showed himself in his practice at University College Hospital that severe cases can be treated without alcohol; when it is administered, he continued, it should be according to the patient. All

good remedies, he asserted, are poisons, but their good effects are produced by the judicious way of giving them; alcohol has been given too indiscriminately. One word, he thought, has done much harm, and that is "debility," for which alcohol is believed to be a remedy, and hence the fashion of giving it. In some cases of typhoid fever he admitted alcohol to be a necessity, but a large number, he said, are better treated without it; and the same holds good in delirium tremens, a brisk purge and an emetic being in his opinion quite as good. He protested against the idea of there being danger for a person to abstain altogether from alcohol, as it is almost impossible to give up drink by degrees; was ever a fatal case known, he asked, from giving it up at once? He coincided in the assertion that the medical profession sometimes do harm by the administration of alcohol, such as producing an habitual drunkard, and concluded by saying that the world would get on as well if all alcohol was at the bottom of the Atlantic.—Dr. FARQUHARSON dwelt on the adulteration of alcohol; he mentioned his experiences in the army, where epileptiform fits were produced by adulterated beer, and considered this ought to be grasped by the Legislature. He thought more damage was done to the system of a man who was constantly half drunk than to that of one who only has a carouse now and then.—Mr. JABEZ HOGG, as a surgeon, did not look upon alcohol in the same light as the physician, but considered it needful in the treatment of surgical cases.—Dr. SIBSON said in very few cases of fever in St. Mary's Hospital was alcohol given, and then only when indicated by the pulse. He considered the late Dr. Anstie right in saying that alcohol restores tension to the arteries, though it is not a constant effect; therefore his (Dr. Anstie's) dictum is a good one. When there is tension of the vessels no spirit should be administered, but if the vessels want tension, alcohol is indicated, and this can always be ascertained by the finger. Another question treated by the speaker was the slow poison of alcohol; he had seen arterial degeneration evidently traced to the great overuse of spirit. Why, he asked, is pure spirit injurious to people not leading an active life? He lauded the administration of claret in cirrhosis of the liver caused by spirits, and related a case in point.—Dr. HARE asked if the patient got better by taking claret, or by the diminution of the alcohol, and thought the cessation of any alcohol would have produced the same effect. —Dr. SIBSON, in reply, said the same quantity of alcohol taken in wine such as claret did less harm than the absolute spirit.—Dr. LEARED remarked that the great majority of cases of dyspepsia were benefited by alcohol in moderation, particularly when taken as claret; he also thought it useful to moderate the effects of waste, as in fatigue or mental exertion. — Dr. LAUDER BRUNTON, in answering the different speakers, said that alcohol acted differently on different people; with some it did not stimulate the brain, whilst with others it acted as a stimulant to the heart. With regard to the difficult question as to how alcohol was oxidised in the body, he considered it was burnt off and oxidised in the same way as grape-sugar. Glycogen he had remarked was increased in the liver of a starving animal by giving alcohol, therefore some portion of the spirit must undergo combustion in this way, becoming probably first glycogen, then sugar, then acetic acid; but this, he said, was merely hypothesis. He thought alcohol would have a different effect on a frog's foot and on the human vessels. Alcohol, in combination with other bodies, he believed to produce different actions, therefore one wine would not produce the same effect as another. He deprecated the habit of taking spirit on an empty stomach. He considered stimulants of importance in convalescence, in order to give the stomach power of assimilating food. With regard to stimulants in hæmorrhage, he took, as an example, hæmorrhage from the uterus: in an ordinary case, he said, cold to the abdominal wall will stop it by causing contraction, brought about by stimulating the sensory, and through them the motor nerves; but, on the other hand, if the patient had already bled considerably, the cold to the abdominal wall will not produce reflex action, as the nervous centres are depressed by the loss of blood. By giving alcohol in such a case, he continued, though we dilate the vessels, we give more blood to the nervous centres, and the stimulus of cold to the abdominal wall will then act.

The meeting then adjourned at a late hour.

# Reviews and Notices of Books.

*Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques.* Tom. XXI. LYC—MEC. Paris: Baillière. 1875.

AN important article in this volume is the Lymphatique (Système), by MM. Le Dentu and Longuet, which runs to one hundred pages, and is divided into two parts, one of which is devoted to the anatomy and physiology, the other to the pathology. The physiological part is not well worked up to, in fact is far behind the present state of our knowledge. We observe that the opinions of Sappey are adhered to, to the effect that the lymphatic vessels communicate at their origin with the bloodvessels, the communication being effected by capillary bloodvessels, which anastomose and form loops with the lacunæ, or, as he terms them, "capillicules" of the lymphatics. The diameter of the blood-capillaries is only $\frac{1}{1000}$ of a millimeter, or $\frac{1}{25400}$ of an inch, which accounts for the non-passage of blood-corpuscles. Certain tissues are entirely destitute of lymphatics, as the central nervous system, the serous and synovial membranes, bones, &c. The supposed stomata do not exist. Now, in regard to these statements, it is indeed added that opinions differ considerably; but why give such prominence to Sappey's views? the last two of the above propositions being incontestably erroneous, as the authors might have satisfied themselves if they had looked through Dr. Klein's beautiful plates and descriptions of the lymphatic system, to which, however, no reference is made.

The subject of angioleucitis is treated of under the heads of simple or inflammatory, and septic, in each of which there may be angioleucitis of the trunks, angioleucitis of the reticula, and angioleucitis of the radicles; and the symptomatology of these forms is separately given. The following case is cited to show the extraordinary violence of an attack of lymphangitis in some instances:—A man had a sequestrum removed from the first metatarsal bone. A few days afterwards, against orders, he walked about the ward. He had a violent rigor at the same time, and fell into a state of coma, which proved fatal. Angioleucitis of the whole limb was established during life, affecting the reticula. When lymphangitis is not connected with chancre it has little tendency to suppurate, and resolution is the ordinary termination. The diagnosis is drawn between it and simple phlegmon, diffuse phlegmon, erythema, erysipelas, and phlebitis. The treatment presents little novelty.

Considerable space is devoted to the account of acute and chronic inflammation of lymphatic ganglia. For chronic enlargement, in addition to the observations on general treatment, electrical treatment is very briefly alluded to, though this might have been advantageously discussed at greater length. Three other methods are then described—*écrasement*, which consists of crushing the ganglion between the finger and thumb till the investment bursts; *broiement*, which consists of subcutaneous free division with a tenotomy knife; and *extirpation*. It is stated that the last alone gives good results. We more than doubt its advantage, and at all events the operation should never be lightly undertaken, for when there is one ganglion swollen and perceptible to the touch, there are many that come into view during the operation, and we have seen some awkward results occur from merely taking out a gland in the neck. The bibliography is tolerably good, but is chiefly limited to the last twenty years. An article is devoted to Lypemanie (= melancholia) by M. Ach. Foville, fils, who states that it constitutes 35 per cent. of all the cases at Charenton. It is more frequent in women than in men, in the proportion of 40 to 31.

The article Machoires (upper and lower jaw) is written

by M. Armand Després, and embraces the consideration of fractures, dislocations, tumours, and diseases, as from phosphorus fumes, &c.

The longest article in the volume by far is on the Hand (Main), by Duval and Le Dentu, and is very complete, giving the anatomy and physiology very fully.

Another important article is "Maladie," by Maurice Raynaud, which may be considered a short but good essay on general pathology.

In the article "Mammelles," by M. Lannelongue, some curious facts are given on the authority of Sappey, not contained in any of our English works. It is stated that the skin of the mammary region outside the nipple and areola is extremely rich in muscular fibres of the smooth variety. The skin of the areola contains sebaceous glands, sudoriparous glands, and hairs. The dermis is composed exclusively of connective and elastic tissue fibres, beneath which is a continuous ring of muscular fibres analogous to a sphincter. The skin of the nipple contains neither muscular fibres nor hair-follicles nor sudoriparous glands, but is extremely rich in sebaceous glands. The inflammations of the breast are treated of under the heads of phlegmasia between the skin and breast, phlegmasia of the gland, and phlegmasia of the tissue beneath the gland. M. Lannelongue recommends, in opposition to M. Gosselin, that abscesses of the gland should be opened with the knife, though not necessarily very early. The tumours described are divided into the benign and the malignant, the former comprehending general and partial hypertrophy (adenoma), fibroma, lipoma, galactoceles, cysts, osseous tumours and calcareous concretions, and neuromata, the latter including sarcoma and carcinoma.

There is a long and exceedingly interesting article upon "Marshes" (Marais), by H. Rey, in which a full account is given of the marshy districts of France. These seem to be very large, amounting to an aggregate at least equalling one of their departments, and probably very much more. Most encouraging accounts are given of the value of the eucalyptus globulus on the western littoral districts of France.

The last article of importance is the "Région Mastoidienne," by G. Poinsot, which, besides other interesting information, gives the particulars of no less than ninety-eight cases in which trephining the mastoid process was performed.

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*Lectures on State Medicine.* By F. S. B. DE CHAUMONT, M.D., F.R.C.S.E., Surgeon Major, Army Medical Department, and Conjoint Professor of Military Hygiene, Army Medical School. London: Smith, Elder, and Co., 15, Waterloo-place. 1875.

THESE lectures, which were delivered before the Society of Apothecaries in May and June of last year, do not require a detailed notice now, because regular abstracts appeared in THE LANCET at the time the lectures were given. The author, in his prefatory address, divides hygienic history into (1) the instinctive period, when man is in the rudest state of savagery, not much removed from the brutes; (2) the supernatural period, when disease is looked upon as the direct act of an offended deity; and (3) the rational period, when disease is recognised as the result of physical causes, that admit of being inquired into and dealt with in a scientific manner, this last division requiring subdivision into the stages of development, legislation, and freedom. It may be fairly considered that in this country we have now reached (though not so very long ago) the rational period and its stage of legislation. General and special hygiene, water, soil, food and beverages, and prevention of disease, with their numerous subdivisions, are all successively and successfully discussed; and, as we predicted, the series of lectures forms a volume that should be in the possession of every practical sanitarian, lay or professional. A great merit of the book (particularly in the present state of public opinion as to matters relating to health) is that it does not aim at the impracticable, or assume that legislation and sanitary officers can prevent all and every disease. We leave the book with a regret (felt and experienced by many others) that the admirable course of hygiene prescribed and given at Netley is inaccessible to other than army medical officers, or a large number of medical officers of health would gladly embrace the opportunity of attending Dr. Parkes's course, to their own benefit and that of the districts to which they are attached. We cordially recommend the book to all urban, rural, and port medical officers engaged in work under the Public Health Act.

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*Medicinal Plants.* Parts III. and IV. By R. BENTLEY, F.R.S., and HENRY TRIMEN, M.B. London: J. and A. Churchill.

THESE parts of the new monthly serial fully maintain the high character of the work, as evidenced in the opening numbers. Among the figures and descriptions worthy of note may be especially cited those of Sanguinaria canadensis, Juniperus communis, and Papaver rheas in the third number; Linum usitatissimum, and Paullinia sorbilis in the fourth number. The plates of the juniper and flax plants are most admirable. The rhizome of Sanguinaria is officinal in the United States Pharmacopœia. Its action is emetic and purgative, stimulant and diaphoretic in small-pox. It, together with chloride of zinc, formed the chief constituent of the well-known "paste" introduced by Dr. Fell for the removal of cancerous growths. The escharotic properties of Fell's paste depended, however, doubtless more upon the mineral than upon the vegetable constituent. We are grateful also to the authors for introducing us to Paullinia sorbilis, the Brazilian plant, the seeds of which constitute the valuable drug guarana. The authors observe, with regard to the identity of guaranin with thein, that this principle has now been found in "four different substances derived from four plants of four different natural orders, and which have been used from the earliest periods in the preparation of unfermented beverages in different parts of the world." Of these, guarana yields by far the largest quantity of them. There is an ample bibliography appended to each article.

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*Medical and Surgical Examination Questions.* By H. AUBREY HUSBAND, M.B. London: Longmans, Green, and Co.

WE are not surprised that a second edition of this little work has been called for. It will no doubt assist those preparing for examination, and will also encourage the industrious student to escape from the supposed necessity of "grinding," a process which the competitive examinations of the present day have rendered so pre-eminent that it is but too common a thing to meet in the public services those whose minds are stored with the heterogeneous views of a dozen celebrities on any malady, while their memories are unable to furnish them with the routine practice of a single sound hospital physician in its treatment. The questions on each subject are sufficiently comprehensive to enable the student to test his own knowledge, and so to dispense with the literary veneering of the grind-room.

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*First Book of Zoology.* By EDWARD S. MORSE, Ph.D., late Professor of Comparative Anatomy and Zoology in Bowdoin College. London: Henry S. King and Co.

THIS is an extremely simple exposition of the principal divisions of the animal kingdom (without any hard words) which might be advantageously used in schools or placed

in the hands of beginners. It is written in a pleasant intelligible style, though here and there disfigured by a few Americanisms. We have noticed only one or two errors; for instance, the shell referred to in the explanation of Fig. 33 is *not* what we in England call the common cockle. A good point about the book is the large number of original illustrations, which, though only in outline, are quite sufficient for the identification of the objects referred to; the worst in the book is on the last page, where a salamander and three wretched little embryos of birds do duty for the Vertebrata.

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# REPORT
OF
# The Lancet Sanitary Commission
ON THE
# "SWEATING" AND "HOME-WORK" SYSTEMS,
## AND THEIR INFLUENCE ON PUBLIC HEALTH.

IN Dr. Richardson's now celebrated address he adverted to a danger which had often before been noticed, but for which no remedy has hitherto been found—namely, the probability of a spread of infectious disease by tailors and dressmakers. Since that time many statements have been laid before us which illustrate this danger, and we have therefore thought it right to institute fresh inquiries into the whole subject.

It is well known that a great deal of the making-up work of tailors, dressmakers, and bootmakers is not done in the shops, but is given out either direct to the workpeople or to contractors, known among the tailors as "sweaters." Some of these contractors have workshops of their own, but others put the work out, and act simply as middle-men. A large portion of the cheap tailor's work is done by contract; the making-up of 13*s.* trousers, for example, being readily undertaken for 18*s.* a dozen, the contractor "sweating" his profit out of his unfortunate assistants. These assistants, many of them belonging to the very dregs of society, can scarcely be called tailors. They are often taught but one thing, such as making a seam or a button-hole; their labour ranks as unskilled labour, and, as such, is paid for at the lowest possible rate, and they are commonly entirely in the power of their employers.

Conditions such as these are obviously apt to be unwholesome. Many of the "sweaters" cannot, or do not, keep workshops, but crowd their assistants in the small and filthy apartments in which they live and sleep, escaping in this way the supervision of the law. In one room the family cook, sleep, work, are sick, and die. Dirt accumulates unheeded. The bedding of the night time is thrust by day under the tailors' boards, and a swarm of dirty and neglected children often help to vitiate the air and pollute the work.

Such dens are fit centres for disease. They often lack even the purifying influence of one day's rest in seven. The "sweaters" are no observers of Sunday. Many of them are Jews, particularly German Jews; and while they take their holiday on the Saturday, they expect their Christian workpeople to labour on continuously. When we add that women and children are constantly employed as assistants, that their labour is always uncontrolled and often excessive, and that domestic duties must, under such circumstances, be neglected, the evils of home-work as at present carried on become too evident to be denied.

It must not be supposed from what has been said that the dangers of home-work are confined to the sweaters and their assistants. They are seen in equal force at the West-end of London; even in the homes of regular tailors earning excellent wages. The nature of the work seems to engender a recklessness in sanitary matters even among those who could easily afford to take proper precautions. A case, for instance, was pointed out to us in a house situated in the City, and reputed to have been the dwelling-place of one of our greatest poets. At the top of this house a tailor lives, with his wife and children, in one room, and employs two women, who come in the daytime to help. There is no sign of poverty here. The presence of a good sewing-machine and the fact that the tailor possesses another room on the same floor, prove that his means are not very limited; yet, merely "for the sake of having everything handy," he prefers to live in the one room, and keeps the other for lumber. The wife can continue sewing while she watches the dinner, and thus the whole family sleep, cook, and work in the one room by preference, and not from necessity.

For the remedy of these evils individual efforts are powerless. Keen competition keeps prices, and therefore wages, at the lowest point. Co-operation among the workpeople is scarcely possible, for no trade union can prevent a necessitous workman from underbidding his fellows while he can hide the nature of his bargain in his own home, and employ his family as assistants. Labour requiring so little skill is always abundant, and although many employers would gladly pay higher wages, it is obviously impossible for them to do so as things stand at present.

As a natural result of the demand for cheap labour, the number of women engaged in the tailor's trade increases daily. It is estimated that there are now twice as many women as men. In the East-end the provisions of the Factory Act are systematically ignored. Women are expected to work twelve hours a day and often more, and their wages do not exceed eighteenpence or two shillings a day, with some small allowance of bread and butter and tea. The work is in all respects unwholesome. The constant application, the excessive work, the close room, and the dust that flies from the cloth cause the most painful lassitude, and the use of a stimulant of some description becomes almost indispensable. This stimulant, we need hardly remark, is not the wholesome oatmeal-water which has proved so beneficent to the men employed in the gas-works, but consists, as a rule, of questionable beer or more treacherous spirit. The monotony of this existence and its hopelessness often occasion fits of despair which generally end in drunkenness. Pauperism follows, and we are furnished with fresh illustrations of the old remark that the making of cheap clothes is subsidised out of the poor-rate.

Grievances, similar to those above described, exist among the dressmakers and bootmakers, but not to the same extent. Most of the larger firms have workshops under proper inspection, and sweating appears to be less common. Mischief enough still exists, however, and home-work has still its evils and its dangers.

We turn now to another side of the question, one in which the public has a more selfish interest. Work-rooms such as we have described are peculiarly fitted for the development and concentration of contagious disease, and it is matter of common knowledge that work often goes on in them in actual contact with the victims.

The fearful realism of "Alton Locke" first drew public attention to the subject, and since then cases have from time to time come to light which afford powerful evidence of its accuracy.

It will be remembered that the death of Sir Robert Peel's daughter was traced to the tailors who had made her riding-habit in the same room with a fever patient; and Dr. Richardson stated in his recent speech that he had seen a riding-habit thrown over the bed to cover a person suffering from the same contagious disease.

Similar incidents are no doubt of constant occurrence, and are familiar to many medical practitioners, who do their best to protect the public, but who freely admit the imperfection of their power. From our own recent inquiries we select a few cases among many which have been laid before us, not as being the worst, but as being in some one respect typical. In doing so we must take the oppor-

tunity of thanking those of our medical brethren who have given us the benefit of their experience.

Take, for example, a recent case in Soho, for the facts of which we can vouch. A dressmaker's daughter was taken ill with scarlet fever, and lay for about a week in a room where twelve sempstresses were at work all day. She had hardly reached the convalescent state before her mother in her turn caught the disease. On the arrival of the physician he found the girl up trying to direct the work, and actually handling the dresses, while her mother lay by her side stricken with the fever. This, fortunately, did not continue for long, as the work-girls, seeing the disease was spreading, refused to come any more, and the business was perforce abandoned for a while. In Marylebone a child recently died of fever in the room in which his father and family were working at tailoring. These people had two rooms, but apparently preferred working by the sick child. In the heart of Soho we found the following among many other similar cases. Two children, aged twelve and two, had the scarlet fever together. Their father and mother sat by their bedsides busily at work over a red hunting coat. It is true that, at the doctor's suggestion, they ultimately used disinfectants, but, after all, the coat in question could hardly have been a very safe garment.

The clothes worn by the greater part of the aristocracy are made in the district immediately to the east of Regent-street. Poland-street, Brewer-street, and the neighbouring streets, are crowded with tailors, and some are so skilled in their work that they gain as much as ten and twelve shillings per day. Yet there is much danger even among these more fortunate men. A surgeon, whose practice lies in the very heart of this district, informed us that fever is greatly on the increase, and he sent no less than eight children to the Fever Hospital in one month. There were also many other cases in which it was not necessary to remove the patients. That danger is confined to no class is shown by many instances before us. We were told of a bootmaker, living in one room, stitching at boots for the Duchess of Edinburgh by the bedside of his dying wife. The disease in this case was not contagious, but there is every probability that if it had been things would have been the same. The man would not have been likely to leave his wife, or sacrifice his means of living.

In the neighbouring parish of St. Ann, there are nearly four hundred persons living to the acre, and a practitioner complains that the sanitary supervision did not suffice to meet the exigencies of so crowded a district. At the present moment there is, among many other cases in this parish, a tailoress and four children living and working in one room, while an aunt sleeps in an adjoining closet. The children are now suffering from measles.

In other parts of London, and, indeed, in all the great industrial centres, evidence similar to the above could be collected. For instance, there were two children down with scarlet fever in the New Cut. Their father worked at home as a bootmaker; and we have medical evidence to prove a similar case in Cross-street, Blackfriars. In St. James's-street in the same quarter, the three children of a dressmaker were attacked by scarlet fever. On the 29th of October last a child died of the same fever in Little Sutton-street, Clerkenwell. It had been put out to nurse, and slept in the same room with its guardian and her daughter. During the whole illness the daughter used to go to and from this fever den to a milliner's workroom, where she made bonnets with several other companions. These last cases, although interesting, belong to a different class, as the work was not done at home; but enough has been said to show the ease with which such narratives can be collected.

The best remedy for the evils we have described would probably be an extension of the Workshops Act to all buildings in which wearing apparel was made for sale. Such an extension would no doubt be attended with some difficulty. But we believe that it would be found practicable, and that the difficulty would be less than is imagined.

At present, all that can be done is for the public to deal as far as possible with those tradesmen only who have workshops; for the tradesmen, if they cannot have all their work done in their own shops, to exercise vigilant supervision over their assistants' dwellings; and for medical men to assist in informing the employer or sanitary inspector whenever cases likely to lead to public danger come before them.

## THE LATE OUTBREAK OF ENTERIC FEVER AT UPPINGHAM SCHOOL.

WE have received the report of Mr. Haviland, the medical officer of health for the combined Northampton Districts and for the Rural Sanitary Authority of Uppingham, giving a detailed account of the causes which led to the outbreak of enteric fever in the "school" at Uppingham last autumn, tracing the extension of the disease among the various "houses," and describing the means adopted to check its progress. We have also obtained the report of Mr. Rawlinson, C.E., who was deputed by the Local Government Board to visit Uppingham and inspect the town and school-houses, and advise the engineers as to the necessary works to be executed. We intend briefly to recount the chief points of interest touched on in these two reports on the fatal outbreak.

Uppingham is a small town in the county of Rutland, with a population last census of 2601; it stands about 500 feet above sea-level, and consists principally of one long street. The average annual death-rate for the last twenty years is 15·8 to every 1000, and the zymotic death-rate 3·05 for the same period; the average death-rate, during the last four years, has been 13·4, and the zymotic rate ·09. On three occasions, during the last twenty years, the death-rate has exceeded 20 per 1000; the highest-death rate was reached in 1870, when it attained the high figure 26·5, and the deaths in the zymotic class amounted to 12·9 per 1000. Uppingham enjoys excellent soil known at the "Northampton sand," and possesses naturally a good water-supply, though the well-water used by the inhabitants is contaminated by infiltration from the numerous cesspits that abound in the town. Endeavours have been made from time to time to improve the drainage of the town, but these have practically failed owing to the obstinacy of owners not draining their houses, so that the main sewers that have been constructed are practically useless, and even dangerous in some respects, as these have not been regularly flushed and properly ventilated. The greater part, therefore, of the sewage of the town is disposed of in cesspits. The school consists of thirteen school-houses, situate in different parts of the town, and one sanatorium. The sanitary conditions of the school, up to the recent alterations, may be considered as identical with those of the town.

The history of the outbreak goes back to June 24th of last year, when a boy died in Mr. Hutchinson's house the day after the breaking up of the school for the Midsummer holidays. This case the medical officer of the school certified to be enteric fever. No attempt appears to have been made to trace the cause of the disease in this case. On the re-assembling of the school in August one of the masters in the lower school was taken ill, and remained so several weeks. On the 2nd of September a plumber was called in to remedy an obstruction in the flow of sewage from the boys' trough closet in Mr. Hodgkinson's house (the house in which the boy who had died the previous term had sickened) into an unventilated cesspit; a lighted candle was used for exploring, and immediately it was lowered a tremendous explosion of sewer gas took place. Three weeks after the explosion (Sept. 21st) a boy fell ill of fever, which the medical officer of the school stated presented the characteristic features of enteric fever. Other cases followed in succession. In Mr. Hodgkinson's house 27 out of 60 persons residing there contracted the disease—viz., 18 scholars, 2 nurses, 6 servants, and the master's son. On the 1st of October cases occurred in the house of the Rev. G. H. Mullins; out of 44 persons residing in this house 17 were attacked. The Rev. W. Campbell had 6 cases in his house; three of the other houses had only 1 case in each, and seven houses entirely escaped. The total number of cases, therefore, amounted to 53. The progress of the disease was as follows:—In the week between the 21st and 28th of September 2 cases occurred; between 28th of September and 5th of

October 12 cases; and from 5th to 12th of October 16 cases—in all 30 cases. Yet up to that time the school was still carried on, and no orders issued that scholars should not visit the infected houses, nor is there any evidence to show that any active measures were being employed to prevent the extension of the disease. On the 13th of October it was reported at one of the ordinary weekly meetings of the Uppingham Sanitary Authority that there were some cases of fever in the school. Mr. Haviland was telegraphed for. Mr. Thring and the Rev. G. H. Mullins at the same time wrote to that gentleman requesting him to inspect the school. In both these letters are paragraphs which help us to explain the strange apathy which had hitherto characterised the proceedings of the school authorities. Mr. Thring writes, date Oct. 11th, twenty days after the occurrence of the first case, and when there were thirty cases of fever: "This last week there has been an outbreak of fever, called by some low fever, by others typhoid, and by the most eminent man, I believe, who has delivered an opinion on it—Dr. Hastings, a London physician, whose son is here,—gastritis"! The Rev. G. H. Mullins writes: "To investigate into the true nature and cause of an outbreak of typhoid fever (so called by Mr. Bell, the medical officer.) In saying typhoid fever (so called by Mr. Bell) I do not mean to impugn his opinion, but to justify my using words, as other authorities deny that illness is typhoid fever." Of course, so long as the school authorities shut their eyes to the real nature of the outbreak, it would be impossible to enforce any active measures for preventing the spread of the disease. It is much to be regretted that Mr. Bell, finding his opinion distrusted, did not insist on having it confirmed by a competent authority. We hope the trustees of the school will in future direct him to do so, if any difference of opinion should arise between him and the masters as to the diagnosis of possibly infectious disorders. Mr. Haviland commenced his inspection Oct. 15th by visiting Mr. Hodgkinson's house, in which the first case had occurred. This house is a large and handsome mansion, and was erected some seven or eight years ago, at a cost of about £10,000; the sewage was received in three cesspits. No. 1, which was situated at the north-west angle of the house, received the sewage of the boys through closets by means of an elastic six-inch india-rubber tube; it was in this pit the explosion occurred. It was well constructed, about 24 feet in circumference, 8½ feet deep, and 8 feet in diameter, and when uncovered it was full to the very top with solid sewage. It had received the excreta of forty boys for five years without being emptied. As above stated, it was unventilated, and the sewer gases must have passed into the house by means of the india-rubber pipe into the study passage, the studies, lavatories, dining hall, class room, and the house generally. The water-supply of the house was derived from a well, below the wine cellar, 43 feet from No. 1 cesspit and 15 feet from another; the springs, which approached the well from the north-west in a line from the sanatorium, passed under the connecting drain of these two cesspits. The Rev. Mr. Mullins' house was in close proximity to Mr. Hodgkinson's; the water of the house, the particular well not mentioned, was analysed, November 15th, by Professor Wanklyn. He reported it contaminated water, containing 104 grains of solids per gallon, and 0·13 parts of albuminoid ammonia. This house drains into the town south sewer. Owing to a defect in the trapping, regurgitation of sewer gases took place from the drains of a neighbouring house. At Rev. Mr. Campbell's house a 3-inch rain-water pipe in the yard was found broken off about three feet from the ground, and the matron had complained of a bad smell, which was attributed to the sewer in High-street. Professor Wanklyn examined the water-supply of this house, and pronounced it not contaminated; three boys, two children, and the matron were attacked in this house. On the 2nd of November the school was broken up, and the boys sent home. It is interesting to notice that up to Oct. 21st there were very few cases of fever in the town generally, direct evidence of only three cases being attainable. It was resolved that Mr. Haviland and Mr. Rogers Field, C.E., on behalf of the town, and Mr. Tarbottom, C.E., on behalf of the several masters and trustees of the school, should decide what was necessary to be done towards improving the school-houses, and the condition of the town generally; and, at the request of the masters, a Government inspector, Mr. Rawlinson, C.E., was deputed to make the necessary inquiries, and report to the Local Government Board. That gentleman has now reported on the engineer's report, and states that he is satisfied that each school will be in as complete and satisfactory a state as the best modern sanitary science can put them. Cesspools have been abolished, drains have been relaid and ventilated, closets, sinks, and gulleys have also been improved, renewed, and fully ventilated. With regard to the town, he states that Mr. Field has devised a system of sewers, in which ventilation is fully provided for. Mr. Rawlinson concludes his report by stating the trustees and masters have improved the sewerage, drainage, ventilation, and water-supply of the several schools in the best practicable manner.

On reading these two reports we cannot help seeing that all the conditions for the successful spread of enteric fever were present at Uppingham last autumn—a porous soil, a water-supply drawn from shallow wells, with contiguous cesspits. A case of undoubted typhoid occurs in one of the masters' houses at the end of the Midsummer term; and in the Michaelmas term, after an explosion of sewer-gas in the unventilated cesspit of the same house, there is a development of a fever of the same nature in that house, 27 persons out of 60 being affected. The gases of the cesspit had free access to the studies, &c., and the well from which the water was supplied was not 50 feet distant from this cesspit, and only 15 from another, whilst the stream supplying the house flowed under a drain connecting two cesspools of the house. Two other houses also suffered, but not to the same extent; but the house nearest to the one first infected suffered most. A few other cases occurred in some of the other school-houses; but these cases can, we think, be accounted for by the free intercourse permitted the scholars of these houses with those infected. It is much to be regretted the school authorities allowed any doubt to be thrown on the opinion of the school medical attendant as to the nature of this disease; in consequence of this error much valuable time was lost at the outset, when prompt measures alone could check the onward progress of the disease. Mr. Bell's diagnosis was perfectly correct, and ought to have been received as conclusive. If the masters were in doubt they ought to have appealed to the sanitary authority of the district, who would have at once assumed the responsibility of deciding the question, and taking the necessary steps to prevent the extension of the disease. By delaying to do so till the last moment, and not till thirty cases had been attacked, the school authorities assumed a grave responsibility. It is not assuring to find that an infectious fever may arise and extend in one of our large public schools, and yet the true facts, if not withheld, certainly not communicated to the parents, and also to find little or nothing attempted in the way of preventive measures. Sad as the lesson taught by this outbreak at Uppingham is, it will not be without value if it teaches school authorities the necessity of trusting less to their own omniscience and more to the guidance of those who, by special training, are best qualified to give advice and act in such emergencies.

## EXTRACTION OF A LARGE CALCULUS PER URETHRAM IN A GIRL AGED NINE.

*To the Editor of* THE LANCET.

SIR,—Thinking the following may be of some practical use, I ask for a small space in your columns.

A. B., a diminutive girl, had been suffering from symptoms of stone for the last four years. On sounding on the 7th of December, 1875, a stone was detected, and on the 9th it was extracted per urethram. The urethra was dilated with bougies under chloroform until a Weiss bivalve dilator could be introduced; it was then quickly dilated, and on withdrawing the instrument the finger could be introduced into the bladder, the stone was seized with a pair of straight, long, narrow stone forceps, and, after a little trouble, extracted by some rotatory movement. It weighed 285 grains, somewhat oval, and was of the following dimensions; length 1¼ inch; breadth 1¼ inch; thickness, at the thickest part, about ¾ inch. Nucleus, oxalate of lime, with alternate layers of phosphates and lithates. The child is now quite well, and has perfect command of the bladder during the day. At night there is incontinence.—Yours truly,

King's Lynn, January 18th, 1876. G. B. SWEETING.

THE LANCET.

LONDON: SATURDAY, JANUARY 29, 1876.

IT was asserted long ago by PASTEUR, and has since been asserted and denied alternately by different experimenters, that in putrescible solutions, such as infusion of turnips, no organic life is developed and no putrefaction takes place as long as the solution, after boiling, is exposed only to an atmosphere free from organic germs; in short, that life is never, in our experience, developed from lifeless matter. Among the opponents to this theory, the foremost has been Dr. CHARLTON BASTIAN, whose experiments convince him that organic life is constantly developed in liquids which have been hermetically sealed in flasks while boiling. Dr. BASTIAN goes even further, as the following passage from one of his letters will show:—"I have heated flasks, sealed in the ordinary way, and containing the fluid above mentioned [the turnip-cheese infusion], to a temperature of 105° C. for ten minutes in a chloride of calcium bath, and have found these fluids swarming with bacteria after six days." *

Professor TYNDALL'S researches on this important subject, and the well-devised and well-executed experiments which he exhibited a few days ago to an audience which crowded the theatre of the Royal Institution to the roof, are a continuation of those on the floating particles of the atmosphere, which attracted so much attention some years ago. He has found that these particles can be completely removed from the air by heat, which destroys their organic matter; by filtration through cotton-wool, or, less completely, through the lungs; or by deposition, which last process requires several days for its completion. The most delicate test of the freedom of the air from solid matter was found to be the passage through it of a beam of light. The path of the rays from an electric lantern is clearly marked in ordinary air by the illumination of the motes that float in the air; but if a flask of filtered or otherwise purified air is interposed, no such illumination takes place, and the space inside the glass vessel appears dark. For the same reason, a flask filled with clear liquid transmits the light, acting as a rough lens, while the liquid inside remains dark; but a turbid liquid reflects the light at all possible angles, and appears brilliantly luminous in consequence. The beam of light is therefore a test, not only for solids floating in the air, but also for solids floating in liquids; and as turbidity is an invariable consequence of the establishment of putrefaction or fermentation in a liquid, the use of the test is obvious.

So far the experiments, though interesting and suggestive, brought out no new truth. That floating particles existed in the air, that they were partly organic, and that they could be removed more or less completely by filtration through cotton-wool, were facts known before; and the correlation of these facts with the current theories of putrefaction, fermentation, and zymotic disease was obvious. The agency of the air in these processes was doubted by few; and the idea that the solid particles of the air were the active agents in them was entertained by many. It remained to connect by direct evidence the solid particles and the zymotic changes, and to prove that when the solid particles were excluded the zymotic changes did not occur. As far as putrefaction is concerned, this direct evidence has been supplied by the experiments we are about to describe.

An air-tight wooden box was made, of which one side was glass, while each end had a glass window through which the beam of light could pass. Through the bottom passed several test-tubes, sealed in their holes, and with their open ends upwards. In the top was an india-rubber stuffing-box, through which passed a long pipette by which liquid could be dropped into each test-tube in turn. The inside of the box was moistened with glycerine, so that all particles that settled on it might be retained. Alterations of volume were provided for by small tubes, plugged with cotton-wool at the top. So prepared, the apparatus was allowed to remain at rest for three days, until by the passage of a beam of light through the windows the freedom of the enclosed air from dust was proved. Then organic solutions of various kinds, infusions of turnip, and of many kinds of fish, flesh and fowls were dropped into the tubes. If our memory serves us rightly, about one hundred and thirty different infusions were used in turn. The liquids in the tubes were then boiled from below for five minutes, and the apparatus placed in a room maintained at a suitable temperature. Similar experiments were made in atmospheres purified by filtration and by calcination; but in all the results obtained were identical. *Except in a few cases where the cause of the failure was certain and obvious, no turbidity occurred, and no organic life was developed in one single sample, even after the lapse of weeks or months.* Every one of the same solutions, when exposed to ordinary air, putrefied rapidly.

It is difficult to see any flaw in the evidence here presented. The conditions were apparently far less stringent than in Dr. CHARLTON BASTIAN'S experiments, and the aptness of the solutions for putrefaction was proved in each case. The only obstacles to the spontaneous generation of bacteria were the five minutes' boiling and the purification of the air; and yet these obstacles were in every case sufficient. It seems, however, that the advocates of heterogenesis are by no means content to accept these results as final and conclusive. The last word in regard to this matter has yet to be spoken, and we are informed that Dr. BASTIAN is prepared with some fresh experimental evidence which he hopes soon to bring before the Royal Society in support of the position for the truth of which he has so strenuously contended.

Some highly interesting experiments on the lateral and vertical spread of the infection (for so Professor TYNDALL metaphorically called it) of putrefaction were also shown at the lecture. Frames, each containing one hundred tubes filled with organic solutions, were piled on one another, and the progress of putrefaction in each tube marked from day to day and recorded on charts. The general result seems to be that the action spreads most rapidly down-

* Nature, April 23rd, 1874.

wards; but upon this branch of the subject space forbids us from enlarging.

That the floating particles of the atmosphere really carry the solid germs or seeds of the bacterium, penicilium, &c., can scarcely remain a matter of doubt. That they are invisible to the naked eye; that some of them are invisible under the highest powers of the microscope, hardly affects the argument; and the illustration with which the lecture virtually terminated will probably be accepted by all our readers. We do not profess to give the exact words. "Let us imagine that these minute and invisible particles were increased in size till we could see and handle them, that we planted them in garden-mould, and that in a week's time there came up a crop of cress or of grass,—would any sane man have a doubt as to their nature?"

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THE addresses delivered at the commencement of the session by the Presidents of the Obstetrical Societies of Dublin and Edinburgh had Menstruation for their subject. The method of treating the matter adopted by Dr. LOMBE ATTHILL was, however, very different from that adopted by [illegible]or SIMPSON. The latter limited himself to giving [illegible] of the views held with regard to menstruation, [illegible]elf, the anatomical changes which accompany [illegible] it, the various agents which affect its flux, [illegible]elation of the process to conception, the [illegible]he menopause, &c. On the other hand, [illegible]ed himself to the fact that the mucous [illegible]terus is removed with every catamenial [illegible] during the intermenstrual interval, and [illegible] this fact has upon uterine pathology and [illegible] ATTHILL did not rest his belief in this fact [illegible]al observation alone, but found evidence [illegible] results of treatment obtained in his own prac- [illegible]The President of the Dublin Society has been and is one of the ablest advocates of the application of caustics, and especially of strong nitric acid, to the inner surface of the uterus in the treatment of certain diseases of that organ. He has employed it frequently in cases of obstinate menorrhagia, and apparently with great success. The employment of this agent in the treatment of uterine disease is not new; for Dr. EVORY KENNEDY and Dr. ENGLAND state that they had used it twenty-five years ago. Yet there are no definite rules laid down by which cases in which its use is indicated can be distinguished from those in which it is contra-indicated. Dr. ATTHILL has, however, found that in those cases where the acid had been applied a short time before the expected return of the catamenia, the next flow was hastened and considerably increased; and, on the other hand, that when the application was made soon after the cessation of a flow, the succeeding one returned at the proper time and in proper quantity. The explanation of these effects of the acid, when applied at different times, Dr. ATTHILL finds in the different conditions of the membrane at the different periods of application. Shortly before the appearance of the catamenia the membrane is of considerable thickness, and the application of the acid simply causes destruction of its upper and superficial layer, this being soon removed and followed by hæmorrhage. On the other hand, when the acid is applied soon after the catamenia, it is applied to an exceedingly thin mucous membrane, or even to a bare muscular surface; and in this case the acid acts as a stimulant to healthy action, giving tone to the whole organ, and thus regulating the menstrual function. But Dr. ATTHILL has gone still further. If it be true that menstruation consists in the degeneration and removal of a decidua menstrually developed during the intermenstrual interval, it follows that amenorrhœa may in some cases be due to the failure of degeneration of this membrane. Starting from this hypothesis, he argued that, if a stimulant were applied to the uterus in such a manner as to cause this degeneration, the catamenia would follow. It was thought that the application of carbolic acid would produce the desired effect; and, in some cases in which this treatment was adopted by Dr. ATTHILL, menstruation was established. These facts are of great importance both from their clinical and physiological bearings. Their physiological bearing is, so far as it goes, in favour of the view adopted by Dr. LOMBE ATTHILL—that is, that the mucous membrane of the uterus is removed every month. This view has recently been made the subject of some discussion, and considerable difference of opinion prevails with regard to it. Its importance cannot be questioned, for the physiological and anatomical changes which take place in the uterus and ovaries from month to month must be made the basis of the pathology and treatment of diseases of the female generative organs. The question is surrounded with difficulties, inasmuch as the material for deciding the question is not easily obtained. At the same time there is much material which bears on this question lost at our hospitals and elsewhere owing to the fact that the morbid anatomy of the uterus has obtained little or no attention from general, medical, or surgical pathologists; and obstetricians have, as a rule, carefully avoided the post mortem room. Now, however, that gynæcology is obtaining greater importance and commanding greater attention, we trust that there will be men who will devote themselves to diseases of women alone, leaving midwifery to pure obstetricians, and that use will be made of the material at the command of those pursuing the former branch of medicine and attached to our hospitals, in order to settle this important question. The uterus has as yet been treated as a wilful creature rather than as an organ amenable to physiological law. It has been, and is still, the subject of crude pathological views, which have long ago ceased to find supporters in other departments. This is partly due to our ignorance of uterine physiology; in part to want of investigations in uterine pathology; in part to a devotion on the part of the few workers in this department to morbid anatomy rather than to morbid physiology. Though physiology should be made the basis of pathology, and pathology of treatment, yet pathology and treatment may in many cases confirm or tend to disprove physiological conclusions; and Dr. ATTHILL has in his annual address brought forward the evidence of treatment in support of the teaching of physiology with regard to amenorrhœa and menorrhagia.

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IN our leading remarks upon the events of the past year, published a month ago, we referred specially to the supine-

THE LANCET.

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IT was asserted long ago by PASTEUR, and has since been asserted and denied alternately by different experimenters, that in putrescible solutions, such as infusion of turnips, no organic life is developed and no putrefaction takes place as long as the solution, after boiling, is exposed only to an atmosphere free from organic germs; in short, that life is never, in our experience, developed from lifeless matter. Among the opponents to this theory, the foremost has been Dr. CHARLTON BASTIAN, whose experiments convince him that organic life is constantly developed in liquids which have been hermetically sealed in flasks while boiling. Dr. BASTIAN goes even further, as the following passage from one of his letters will show:—"I have heated flasks, sealed in the ordinary way, and containing the fluid above mentioned [the turnip-cheese infusion], to a temperature of 105° C. for ten minutes in a chloride of calcium bath, and have found these fluids swarming with bacteria after six days." *

Professor TYNDALL'S researches on this important subject, and the well-devised and well-executed experiments which he exhibited a few days ago to an audience which crowded the theatre of the Royal Institution to the roof, are a continuation of those on the floating particles of the atmosphere, which attracted so much attention some years ago. He has found that these particles can be completely removed from the air by heat, which destroys their organic matter; by filtration through cotton-wool, or, less completely, through the lungs; or by deposition, which last process requires several days for its completion. The most delicate test of the freedom of the air from solid matter was found to be the passage through it of a beam of light. The path of the rays from an electric lantern is clearly marked in ordinary air by the illumination of the motes that float in the air; but if a flask of filtered or otherwise purified air is interposed, no such illumination takes place, and the space inside the glass vessel appears dark. For the same reason, a flask filled with clear liquid transmits the light, acting as a rough lens, while the liquid inside remains dark; but a turbid liquid reflects the light at all possible angles, and appears brilliantly luminous in consequence. The beam of light is therefore a test, not only for solids floating in the air, but also for solids floating in liquids; and as turbidity is an invariable consequence of the establishment of putrefaction or fermentation in a liquid, the use of the test is obvious.

So far the experiments, though interesting and suggestive, brought out no new truth. That floating particles existed in the air, that they were partly organic, and that they could be removed more or less completely by filtration through cotton-wool, were facts known before; and the correlation of these facts with the current theories of putrefaction, fermentation, and zymotic disease was obvious. The agency of the air in these processes was doubted by few; and the idea that the solid particles of the air were the active agents in them was entertained by many. It remained to connect by direct evidence the solid particles and the zymotic changes, and to prove that when the solid particles were excluded the zymotic changes did not occur. As far as putrefaction is concerned, this direct evidence has been supplied by the experiments we are about to describe.

An air-tight wooden box was made, of which one side was glass, while each end had a glass window through which the beam of light could pass. Through the bottom passed several test-tubes, sealed in their holes, and with their open ends upwards. In the top was an india-rubber stuffing-box, through which passed a long pipette by which liquid could be dropped into each test-tube in turn. The inside of the box was moistened with glycerine, so that all particles that settled on it might be retained. Alterations of volume were provided for by small tubes, plugged with cotton-wool at the top. So prepared, the apparatus was allowed to remain at rest for three days, until by the passage of a beam of light through the windows the freedom of the enclosed air from dust was proved. Then organic solutions of various kinds, infusions of turnip, and of many kinds of fish, flesh, and fowls were dropped into the tubes. If our memory serves us rightly, about one hundred and thirty different infusions were used in turn. The liquids in the tubes were then boiled from below for five minutes, and the apparatus placed in a room maintained at a suitable temperature. Similar experiments were made in atmospheres purified by filtration and by calcination; but in all the results obtained were identical. *Except in a few cases where the cause of the failure was certain and obvious, no turbidity occurred, and no organic life was developed in one single sample, even after the lapse of weeks or months.* Every one of the same solutions, when exposed to ordinary air, putrefied rapidly.

It is difficult to see any flaw in the evidence here presented. The conditions were apparently far less stringent than in Dr. CHARLTON BASTIAN'S experiments, and the aptness of the solutions for putrefaction was proved in each case. The only obstacles to the spontaneous generation of bacteria were the five minutes' boiling and the purification of the air; and yet these obstacles were in every case sufficient. It seems, however, that the advocates of heterogenesis are by no means content to accept these results as final and conclusive. The last word in regard to this matter has yet to be spoken, and we are informed that Dr. BASTIAN is prepared with some fresh experimental evidence which he hopes soon to bring before the Royal Society in support of the position for the truth of which he has so strenuously contended.

Some highly interesting experiments on the lateral and vertical spread of the infection (for so Professor TYNDALL metaphorically called it) of putrefaction were also shown at the lecture. Frames, each containing one hundred tubes filled with organic solutions, were piled on one another, and the progress of putrefaction in each tube marked from day to day and recorded on charts. The general result seems to be that the action spreads most rapidly down-

* Nature, April 23rd, 1874.

wards; but upon this branch of the subject space forbids us from enlarging.

That the floating particles of the atmosphere really carry the solid germs or seeds of the bacterium, penicilium, &c., can scarcely remain a matter of doubt. That they are invisible to the naked eye; that some of them are invisible under the highest powers of the microscope, hardly affects the argument; and the illustration with which the lecture virtually terminated will probably be accepted by all our readers. We do not profess to give the exact words. "Let us imagine that these minute and invisible particles were increased in size till we could see and handle them, that we planted them in garden-mould, and that in a week's time there came up a crop of cress or of grass,—would any sane man have a doubt as to their nature?"

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THE addresses delivered at the commencement of the session by the Presidents of the Obstetrical Societies of Dublin and Edinburgh had Menstruation for their subject. The method of treating the matter adopted by Dr. LOMBE ATTHILL was, however, very different from that adopted by Professor SIMPSON. The latter limited himself to giving a summary of the views held with regard to menstruation, the process itself, the anatomical changes which accompany or take part in it, the various agents which affect its first appearance, the relation of the process to conception, the course of labour, the menopause, &c. On the other hand, Dr. ATTHILL confined himself to the fact that the mucous membrane of the uterus is removed with every catamenial flow and renewed during the intermenstrual interval, and the bearing which this fact has upon uterine pathology and treatment. Dr. ATTHILL did not rest his belief in this fact upon anatomical observation alone, but found evidence of it in the results of treatment obtained in his own practice. The President of the Dublin Society has been and is one of the ablest advocates of the application of caustics, and especially of strong nitric acid, to the inner surface of the uterus in the treatment of certain diseases of that organ. He has employed it frequently in cases of obstinate menorrhagia, and apparently with great success. The employment of this agent in the treatment of uterine disease is not new; for Dr. EVORY KENNEDY and Dr. RINGLAND state that they had used it twenty-five years ago. Yet there are no definite rules laid down by which cases in which its use is indicated can be distinguished from those in which it is contra-indicated. Dr. ATTHILL has, however, found that in those cases where the acid had been applied a short time before the expected return of the catamenia, the next flow was hastened and considerably increased; and, on the other hand, that when the application was made soon after the cessation of a flow, the succeeding one returned at the proper time and in proper quantity. The explanation of these effects of the acid, when applied at different times, Dr. ATTHILL finds in the different conditions of the membrane at the different periods of application. Shortly before the appearance of the catamenia the membrane is of considerable thickness, and the application of the acid simply causes destruction of its upper and superficial layer, this being soon removed and followed by hæmorrhage. On the other hand, when the acid is applied soon after the catamenia, it is applied to an exceedingly thin mucous membrane, or even to a bare muscular surface; and in this case the acid acts as a stimulant to healthy action, giving tone to the whole organ, and thus regulating the menstrual function. But Dr. ATTHILL has gone still further. If it be true that menstruation consists in the degeneration and removal of a decidua menstrually developed during the intermenstrual interval, it follows that amenorrhœa may in some cases be due to the failure of degeneration of this membrane. Starting from this hypothesis, he argued that, if a stimulant were applied to the uterus in such a manner as to cause this degeneration, the catamenia would follow. It was thought that the application of carbolic acid would produce the desired effect; and, in some cases in which this treatment was adopted by Dr. ATTHILL, menstruation was established. 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IN our leading remarks upon the events of the past year, published a month ago, we referred specially to the supine-

ness of the Government in neglecting to legislate for seaworthy sailors as well as seaworthy ships. It is acknowledged on all sides, and has been insisted upon over and over again in Parliament and on paper, that the safety of a ship is not properly provided for unless the crew are physically competent to do their duty. Mr. C. M. NORWOOD, one of the members for Hull, and a large shipowner, pointed out this fact very forcibly in the House of Commons, on the 8th of April last, during the discussion on the second reading of the defunct Merchant Shipping Bill. He quoted statistics gleaned from the port of London, and said "vessels were leaving port continually, and when they got into blue water one-third of the crew were found incompetent as A Bs, either from disease or want of proper knowledge, and the work was inefficiently performed. The result was loss of life at sea." The class of cases admitted into the Seamen's Hospital at Greenwich on the medical side and in the venereal wards shows a vast amount of severe chronic disease among sailors. No less than ten official inquiries as to outbreaks of scurvy have been ordered by the Board of Trade during the past year, and we believe that the evidence adduced in these cases, if published, would show that this preventable disease had attacked exclusively men affected with some chronic malady, and at the time of signing articles physically incapable of performing active duty afloat. Three, if not more, official inquiries of the same kind have been held during the past year at Callao and San Francisco; and at the beginning of last month twenty-one days were occupied at Quebec in the trial of a ship captain, who was accused of causing the death of one of his crew by undue exposure, the evidence showing that the deceased was the subject of old heart disease, could not have gone aloft, and would have been rejected at the most cursory medical examination. About twelve years have passed since the press showed, and the public saw, the necessity that existed for special prophylactic legislation as to sea scurvy, the outcome of which was the Merchant Shipping Act of 1867. No other sanitary enactments have in their results been more satisfactory; but the only "permissive" clause in the Act—viz., that relating to the medical examination of seamen—has utterly collapsed. Yet the desirability of making it "absolute" is acknowledged by the Board of Trade, by shipowners of all political creeds and of all classes, by shipmasters, and by all real sailors. The Marine Assistant-Secretary of the Board of Trade, in a Report on the Supply of British Merchant Seamen, published in December, 1872, comments thus:—"As the State pays very large sums for the medical and hospital expenses of distressed British seamen abroad, and for their maintenance and conveyance home, the State, merely in the interests of economic expenditure, might properly insist on a medical examination of seamen." These remarks are diplomatic enough; but they only show that the "State," instead of spending, say, a sovereign to prevent mischief, and perhaps loss of life, spends twenty pounds in bringing home a miserable and diseased being, who has been supported for several months by the shipowner, has done no work, has in consequence given additional labour to the rest of the crew, and may, of course, have imperilled the safety of the ship. The *Shipping Gazette*, commenting forcibly on the subject a few days ago, thus concluded:—"As to the advisability of a medical inspection of merchant seamen before signing articles, there is little difference of opinion. It seems to be merely a question of who should bear the cost." It appears, too, that even Mr. PLIMSOLL has at last become alive to the fact that the vital as well as the inanimate material of which our merchant navy is composed must be repaired and maintained in good order before we can fairly say that proper legislative means have been adopted to ensure the safety of our ships at sea.

We may, therefore, expect that, when Sir CHAS. ADDERLEY'S Bill is introduced in the forthcoming session, this important section of the subject will be dealt with in a practical manner. We are told that the application of a medical test to all who present themselves at the shipping-office would be impossible, because in many cases (and particularly if men were scarce) it would not be submitted to; and so a ship, in all other respects ready to sail, would occasionally be stopped from want of hands. It is, however, a mistake to suppose that an examination should in all cases be compulsory. The medical officer would at the time of signing articles be present, and would indicate if in any particular case he deemed an inspection prudent or necessary; or, as was suggested by Mr. NORWOOD, the examination might take place elsewhere, and the seaman be supplied with a certificate, which, if used by the person only to whom it referred, would be quite sufficient to eliminate from the mercantile marine a vast number of cases of chronic disease. But the unfortunate possessors of dilated hearts, ruptures, and ulcerated colons, need not necessarily be deprived of their bread afloat. It would be competent for the medical examiner to decline a man with tubercle for coasting service, but to pass him for an Australian voyage; to refuse a sailor with chronic dysentery for India or China, but accept him for a trip to New York or St. Petersburg. These are examples of working details that can be compassed and mastered by the officials at the Board of Trade without difficulty, and the cost of the scheme might fairly be borne in equal parts by the State and the shipowner.

But a better kind of prophylactic legislation for the mercantile marine will be to give encouragement and assistance to training-ships, or establishments of a kindred sort. On economical as well as on sanitary grounds, we very much question the wisdom of increasing the number of our school-ships. But if, as appears to be the case, the recent disasters afloat tend to give an impetus to the training-ship system, it is plain that some definite plan of internal construction should be adopted, and officially insisted upon, before a ship is lent by the Admiralty for educational purposes. A vessel at fixed moorings is not a specially healthy home for young persons, unless all possible sanitary requirements are rigidly fulfilled. Perfectly clear spaces below, so as to secure ventilation down to the bottom of the ship, a constant water-supply, and good latrines, are some of many things absolutely necessary to secure a fair average of health in these large floating establishments. The entire subject should be looked into and systematised at head-quarters, and the Board of Trade may then very properly give pecuniary encouragement to these schools. If the President, in the future Merchant Shipping Bill, provides and passes sections to compass the objects indicated above, he will but continue

in sanitary matters the preventive policy successfully inaugurated in 1867 by the Duke of RICHMOND, and assist at the same time to secure for our ships a continuous stream of seaworthy sailors.

THERE is no more difficult problem in practical epidemiology than that presented by some of the milder epidemic diseases. With a malady which, like cholera or typhus, strikes down the affected in definite seizure and retains him in unrelaxing grasp for a considerable part of the period during which the disease is communicable to others, the task of isolation is rendered comparatively easy, and the work necessary to arrest the spread of the disease is distinct and obvious. But with those affections which interfere less with the ordinary course of life the case is far otherwise. The difficulty of isolation, when the existence of the disease is known, is vastly increased; the problem is also rendered more complex by the frequent obscurity of the symptoms which mark the invasion and the course of the affection. Moreover, some of these diseases are in their common and immediate aspect so trifling that the sanitary reformer is baffled in his efforts by the indifference of those whose practical co-operation is all-essential to success. Whooping-cough is a disease to which these remarks apply very pointedly. A malady to which a large number of deaths is indirectly due, which often prepares the way for some of the gravest affections to which childhood is liable, whooping-cough, nevertheless, rarely kills directly, and does not, in its ordinary intensity, interfere much with the patient's usual habits. Confinement to bed is rarely necessary, but, without it, effective isolation is most difficult. Confinement to the house is, in a large number of cases, not urgently indicated by any symptoms, and parents among the poor are only too glad to avoid, if they can, irksome and tiresome restraint. During even the most contagious period of the malady the distinctive symptoms may be so obscure that its existence may be unsuspected by the best informed and by the most observant. A medical officer of health communicates to us a pertinent illustration. He had been so impressed by the insidious spread and disastrous effects of whooping-cough that, during a recent outbreak, he issued a circular to the various schoolmasters and schoolmistresses requesting them to have all children suffering, or suspected to suffer, put upon the sick-list and isolated. At the very time, one of this gentleman's own children was suffering from whooping-cough, unsuspected even by his father, and was running about at large. He had contracted it at school, and it was only when his brothers and sisters contracted it from him that the existence of his affection was recognised. Moreover, as our correspondent points out, when whooping-cough is epidemic, hardly any public conveyance can be entered without the distinctive whoop saluting an attentive ear.

It seems a nearly hopeless task to attempt to exterminate or even materially to lessen a disease the form of which may be so insidious and the extension of which is so easy. It is obvious that the only means at present available is the limitation of contact between the sick and the healthy. That the disease is largely spread by school-contact is unquestionable. It is probable that more might be done to lessen the facilities for the extension of epidemics which schools afford. Better provision should be made for the isolated instruction of those children who have been exposed to contagion. Those suspected of the disease should certainly be excluded altogether from attendance. Information should be given to the school authorities, under strict compulsion, of the outbreak of any contagious disease in the homes of the children in attendance; and, further, the school teachers should be well trained in the essentials of practical epidemiology. They should be instructed how to recognise symptoms of suspicious character, when to enforce isolation, and how to manage disinfection.

How far other measures for the arrest of these milder epidemics are practicable, measures of more effective isolation, is a very difficult question. There is so much about these diseases of which we are yet ignorant. The "whoop" may probably persist, for instance, long after the disease is communicable to others. It would be unreasonable to require that a man who whoops should desist from his normal occupation, from earning his bread and cheese it may be, at any rate until we can say definitely whether he is or is not likely to spread the disease. The clear indication is for more systematic and scientific study of the conditions of the origin and spread of these diseases, which cannot but throw important light on the question of their arrest. It is a matter of congratulation that much modern work is taking so definite a direction towards this end. The scientific grants of Government and of our Societies cannot be devoted to a more directly practical object, or to one of greater social importance.

# Annotations.

"Ne quid nimis."

## MEDICAL OFFICERS OF HEALTH AND INFECTIOUS DISEASES.

FROM north, south, east, and west comes to us information respecting movements of our newly-appointed medical officers of health relating to more stringent legislation for the control of infectious diseases. The sentiment which prompts these movements must necessarily command the sympathy of most persons, lay or professional, and the concurrence of many medical officers in them affords presumptive evidence that the evil they are designed to meet is a very real one. It is impossible, however, to give attentive regard to the movements without the attention being arrested by the paucity of information given by the promoters respecting the operation of the existing law as to infectious diseases and the means in the several localities to which the promoters belong; in other words, we are left in the dark as to the provision made by the different local authorities of these districts for dealing with infectious diseases and the success which has attended upon these provisions. Notably we find no reference to that cardinal condition for dealing with such diseases which existing law sets forth—namely, the provision of hospital accommodation; or, if there be a reference, it implies that the authorities have taken no steps to make such provision. Until the information here referred to be forthcoming, it certainly seems premature to call upon either the profession or the people at large, or local authorities, to move the Legislature to make it penal for householders and for medical men not to give immediate information to the local

authority of cases of infectious disease coming under their notice. If local authorities will not willingly carry out the comparatively moderate measures at present required from or entrusted to them, what hope can there be of their carrying out at present larger measures? Of course we assume that the information as to existence of infectious diseases is needed to enable the local authority to take effective action for their limitation, else of what benefit would it be? The Bridge Local Authority, to whose memorial we have already had occasion to refer, brought this memorial lately under the consideration of the Brighton Town Council. In the discussion upon the memorial (the Council refusing to support it by a large majority), one of the Council very aptly said of it: "It gave full instructions as to what the medical man, the householder, and the patient were to do; but it did not say what duty the sanitary authority, as represented in their medical officer of health, was to perform after the requisite information had been given." Read in this practical light, the following clause, proposed to be introduced into a Bill about to be brought before Parliament, "The Halifax Water and Gas Extension Act" (!) is rather startling. "Clause 37. Every medical man in attendance on any person in the borough suffering from any contagious or infectious disease, shall, within twenty-four hours of the discovery by him of the disease, give to the inspector of nuisances notice in writing of the name and address of the person so suffering, and the nature of the disease so far as the same can be ascertained by him at the time, and on failure to do so shall be liable to a penalty." A subsequent clause fixes the penalty at £5.

We are not entirely without information as to the light in which our new medical officers of health wish to have such a provision interpreted. Dr. Maclagan, in a paper read recently before the Northern Counties Association of Medical Officers of Health, expressed himself as follows:—

"All cases of infectious disease should, except in the matter of treatment, be under the control and direction of the medical officer of health, who should have full power to enter any house in which infectious disease is present, and to adopt at once, without any formalities, what he may consider to be necessary precautions for preventing the spread of disease; such as preventing communication with others; isolating the patient in the most advisable manner according to circumstances; disinfecting, &c.; in short, using, without the possibility of interference, such means as he may consider requisite for preventing the spread of disease. In some parts of the Continent when a case of infectious disease occurs in a house, a notice to that effect is affixed to the door, so that everyone may know of the danger of communication with that house. I do not see why this should not be done in this country, placing the house entirely under the supervision and care of the medical officer of health, who would then become responsible for any future spread of the disease from that house."

Mr. Makinson Fox, before the same Association, has also lately moved resolutions for giving to local authorities powers for closing public and *private* schools in face of epidemic disease when they think fit. The Legislature, we should imagine, if propositions of this kind come before it, will need to be satisfied that there is some probability of the people at large displaying more eagerness to aid in carrying out such measures than has been hitherto displayed by their local representatives in carrying out existing measures. Some information also will be needed as to certain questions of cost involved in this suggested peculiar activity of the local authorities, especially as to compensating for private damage involved in the execution of measures. It may be surmised that the principle of compensation which comes into play in the case of kine killed for cattle-plague will also have to be brought into play for damage inflicted upon private schools by their closure, or upon the means of families by restrictions applied to them by the local authority. Again, it will have to be shown more definitively than it has yet been shown that the uses to which the knowledge to be obtained by the additional powers sought would be put, would not be as fallacious as the measures adopted in the old days of home and sea quarantine. The best thing about the various propositions is that they show an exhilarating hopefulness of human nature doing what may be best to be done in view of the evils arising from infectious diseases, and a nearer possibility of our towns and villages rivalling Hygieopolis than its founder, Dr. B. W. Richardson, ventured to dream of.

## DRUNKENNESS AND CRIME.

THE Earl of Lichfield gave utterance to an undoubted truth when, in a speech at the annual meeting of the South Staffordshire Discharged Prisoners' Aid Society, he denied that drunkenness is to be regarded as the root of all crime. A very little reflection will show that much crime is in no way related to drunkenness, but that still more crime is related to drunkenness as its cause is a fact equally certain, which his lordship's speech tended in some manner to discountenance. Our prison reports, the testimony of our gaol officials, the daily columns of police news, afford such proof of this that it should pass as an unquestioned fact. We had almost said an unquestioned platitude, but no fact of such paramount importance for social welfare and moral improvement ought, as long as it is a fact, to sink to the dead level of common-place truisms.

Lord Lichfield pointed out that the average number of convictions for drunkenness during the four years ending 1875 were 50 per cent. more than in 1871, while the increase on the year 1862 was no less than 300 per cent. He maintained that these figures did not correspond in any way to the statistics of crime, since the prison reports showed that "serious crimes" were decreasing at the rate of 25 to 30 per cent. The startling contrast between these two sets of figures suggests the grave fallacies that attend the presentation of sweeping statistics as the equivalent of detailed facts. Their simple meaning is that in a short time the convictions for drunkenness will be numerically equal to the population of the country, while before four years have passed "serious crimes" will have become things of the past. That these offences are diminished is a matter for much congratulation, and it is no doubt to be ascribed in some degree to the efforts of the admirable and too little known societies for the assistance of discharged prisoners. But the facts as stated are certainly no warrant for the conclusion that drunkenness is not a huge cause of crime or that it is less efficient in this capacity than it has ever been. The large proportion of crimes which are due to inebriety came out clearly in the evidence given before the Royal Commission on Habitual Drunkards. One witness estimated that 75 per cent. of crimes for which criminals under his observation had been sent to gaol had been committed while under the influence of drink. Another fact elicited by that Commission bears closely on the statements in Lord Lichfield's speech. It is that the proportion of serious crimes due to this cause is much smaller than is that of the petty offences. Acts of "ordinary violence, petty larcenies, and the like," are "almost invariably committed under the influence of drink." Thus the decrease in serious crimes is manifestly of little significance as regards the effect of alcohol in causing crime, and its significance is still further reduced by our ignorance of the proportion which the serious crimes committed under the influence of drink bear, in the reduced number, to those committed in sobriety. However, as was indeed admitted, and has often been emphasised, the increase in the number of convictions for drunkenness is no indication of the actual

amount of inebriety, since there has been, during some years, a strong effort to repress drunkenness by this means, and the offence has been numerically multiplied by the efforts for its repression.

Until we know the proportion of the reduced number of "serious crimes" which are committed under the influence of drink, we are unable to estimate how great may have been the influence of other efforts for their prevention, and it may ultimately be found that the proportion due to drunkenness has increased in the same ratio as the actual amount of drunkenness has increased. Definite statistics on the subject, gathered, not from isolated personal observation, but from a wide field of official reports, would be of great value, and a real help to reform.

## THE CAUSES OF INFANTILE DIARRHŒA IN LEICESTER.

THE controlling influence of infantile diarrhœa upon summer death-rates, especially in urban populations, has been so well-marked in recent years that the results of any carefully conducted investigations into the causes of this annual scourge deserve full consideration. The Town Council of Leicester were well advised in sanctioning a professional inquiry into the causes of the exceptional fatality of summer diarrhœa in Leicester, and the report recently presented to the Sanitary Committee by Messrs. W. E. Buck, M.A., M.B., and G. C. Franklin, F.R.C.S., who were entrusted with the inquiry, contains much valuable information relating to the epidemic in 1875, which proved fatal to 238 infants under five years of age within the borough during the three months ending 30th September last. Complete information was obtained, by personal investigation, respecting 216 of these infants, whose ages ranged from eleven days to three years, 186 being aged less than one year, including 134 aged under six months. Of the 216 only 22 were wholly suckled, 133 were partially suckled, whereas 61 were entirely fed by hand. The fact that only 10 per cent. of the infants who died from diarrhœa were wholly suckled is important, and we doubt not, if the proportion of fatal cases occurring among wholly-suckled and spoon-fed children could be ascertained, the result would be far more striking. Having expressed their opinion that some local conditions must exist to account for the excessive fatality of infantile diarrhœa in Leicester, Messrs. Buck and Franklin proceed to affirm their conviction that although such conditions as early marriages, debility of parents, maternal neglect and want of breast-milk, debility of infants, and the use of narcotics, exist in Leicester as in other manufacturing towns, they in no way explain the excessive death-rate of infants from diarrhœa in the town. They further conclude that the houses in which the fatal cases occurred were not in themselves insanitary or inferior to others in which fatal cases did not occur, as regards size and cubic space to residents, water-supply, ventilation, drainage, or closet-accommodation. One of the results of this investigation is to show that what is called "specific" diarrhœa was not diffused equally throughout the town, but that its fatality was most concentrated in the low-lying parts; and in order to mitigate the fatality of the disease, it is suggested that the subsoil should be efficiently drained, a free outfall found for the sewage of the town, and that claypits or other excavations, which have been filled up with filthy ashbin refuse, should not be allowed to be built upon. There can be no question as to the advantage the health of the town would derive if these suggestions were acted upon, as the river Soar is now "headed-up against the town by four mills," the sewage-outfall is very imperfect, and the pumping powers at the sewage-works are too small. The present investigation, however, has not yet solved the problem why these sanitary defects cause so high a rate of infant mortality, whereas the death-rate in Leicester of adults is below the average that prevails in other manufacturing towns.

## THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE lamentable demise of Mr. George Green Gascoyen has caused an early vacancy in the Board of Examiners in Anatomy and Physiology at the Royal College of Surgeons. Mr. Gascoyen, an assistant-surgeon at St. Mary's, was one of the recently-appointed members of the Board, and although of failing health for some time past, and suffering from grave pulmonary disease, he was able to be present at the primary examination for two days last week, but on the third day he was unable to attend, and on Sunday last he died. It becomes now a painful necessity to look about for a successor at the College of Surgeons. It is, of course, at present premature to speak definitely, but it will be well to bear in mind that many of the metropolitan medical schools are not represented on the Board of Examiners. These comprise Charing-cross, the London, Middlesex, St. Thomas's, and Westminster. It is therefore desirable that some eligible candidate should be forthcoming from one or other of these institutions. We venture to suggest the name of a gentleman whose election would be welcomed alike by the members of the Board and by those outside. Mr. Hulke, of Middlesex Hospital, is well known and highly esteemed as a surgeon, anatomist, and physiologist. In 1859 Mr. Hulke gained the Jacksonian prize for a dissertation on the morbid changes of the retina, and in 1868 he was appointed the first Arris and Gale Lecturer on Anatomy and Physiology, when he delivered some valuable lectures on the anatomy of the eye. Other Fellows of the College will doubtless come forward, but we make bold to predict that if Mr. Hulke should announce his intention to offer himself for election no serious opposition would be maintained against him.

## "OVERLAID."

THE unconscious temptation to casuistry to which the medical man is constantly liable is no slight one. Frequently a case is laid before him for practical decision in which the evidence in favour of a verdict which will give inconceivable and lifelong pain is little stronger than that in support of a decision which distresses no one. All know how fallible, under such circumstances, human nature is; the kindly feelings which make us sympathise with pain, and shun its infliction when no immediate good can thereby be gained, add force to the temptation. In no case does such a question occur more frequently than in that of the accidental suffocation of a child, by its own mother, during sleep. A woman goes to bed with a child lying on her arm, its face against her breast. She wakes in the morning, finds it in the same position, but it is dead. A half turn in her sleep, a turn back again, and it is done. She does not know that she has moved, and every feeling recoils in horror from the idea that she has been the cause of the death of her offspring. An equally sudden and unforeseen death occurs not unfrequently from the unnoticed occurrence of convulsions. The pathological appearances in the two cases are often nearly alike. A distinction can in such a case be drawn only by knowing the circumstances, and the probability by them suggested must be the guide. It is, however, very easy to give the friends the "benefit of the doubt," and to record the cause as "convulsions" which is really "suffocation." Such would seem to have been the case in a recent instance at Darwen, and the mis-

take is not a harmless one. Nothing but the constant publication of such cases will suffice to keep mothers aware of the danger which may lurk behind the safest posture, and it is not improbable that every published case is the means of preventing at least one similar accident.

It is doubtful whether a child of average health ought to share the mother's bed until it is of such a size as to be safe from the danger of suffocation. Movements in sleep are subject to no control, and an unnoticed turn may be the cause of the saddest of catastrophes. Warm clothing and warm air will obviate all the dangers of isolation.

## THE PRINCE OF WALES'S TOUR.

IT was natural, of course, that those who were disappointed at not seeing His Royal Highness should have expressed as much, but the wisdom of the course pursued seems to have been now very generally appreciated. The untimely death of Lord Hastings is, we understand, much deplored in India, and his loss confirms the soundness of Dr. Fayrer's judgment, founded on Colonel Wilkinson's warning, in stopping the excursion to the Annamalli Hills. Meanwhile the Prince seems to be quite untiring, and he has exhibited an amount of physical energy and endurance for which he was scarcely credited. In fact, His Royal Highness is among the healthiest and strongest of the party, and goes everywhere and sees everything, not forgetting visits to the hospitals of Calcutta and the Children's Asylum. The interest manifested in such institutions as these is productive of much good. As our readers have already learnt, the most afflicted of human beings—the lepers at Bombay—will have reason to remember the occasion of the Prince's visit to India, if it be the fact that attention has been called to their wretched condition, with a view to its amelioration. Dr. Fayrer, during his long residence in Calcutta, in addition to his more professional avocations in connexion with his hospital and professional duties, had the reputation of being a keen sportsman and an inquisitive naturalist. He was understood to be anxious to establish something in the shape of zoological gardens; and among his inquiries and investigations, those bearing upon the physiological action of snake-poison are perhaps best known, in connexion with his magnificently illustrated work on the Thanatophidia of India. It appears that the Prince, among other things, viewed a collection of poisonous reptiles, and witnessed, experimentally, some proofs of the virulence of snake-poison.

## UNQUALIFIED PRACTITIONERS AND DEATH CERTIFICATION.

FRESH illustrations of this great evil crop up everywhere. A few days ago at Stepney and Shadwell-street respectively, two inquests were held respecting the deaths of two male children attended by James Bellairs, 318, Oxford-street, who stated he was not registered, but held a diploma from Giessen, Germany. The coroner remarked such a diploma is useless in this country; so it is for all legal purposes. But it affords ground for using a title which conveys a false impression; and for legal purposes Mr. Bellairs had an understanding with Mr. George Monteath, licentiate of the Apothecaries' Company. The co-operation of these two gentlemen is best described in their own words, referring to the first case. Similar evidence was given in the second case.

"James Bellairs, 318, Oxford-street, stated that he was not registered, but held a diploma from Giessen, Germany. He attended at a dispensary, where he resided. His name was on the plate on the door as accoucheur, and Mr. Monteath's name on the facia. Mr. Monteath paid him 10s. a week for the rent of the surgery. He attended deceased on behalf of Mr. Monteath, as his assistant. Mr. Monteath was ill, and never saw the child. The certificate was written by him, and the signature of Monteath in his handwriting, written by Mr. Monteath's instructions.

"George Monteath, Licentiate of the Apothecaries' Company, and registered, admitted that he never saw the deceased alive; he first became aware of his death on Thursday. He was then at home ill, but went to Mr. Bellairs the following day.

"The jury, after a long consultation, returned the following verdict:—'That deceased died from natural causes, but they strongly reprobate the practice of any qualified practitioner giving a certificate as to death without his personal knowledge of the case, and the jury do further consider that the certificate is illegal.'"

We entirely agree with the jury that the practice of a qualified practitioner giving a certificate as to a death of which he has personally no knowledge is most reprehensible. We would ask the jury in these cases upon what evidence they based their verdict of natural death? or what security is there in such evidence against juries being misled? Mr. Bellairs' evidence is worth as much as an opinion of a neighbouring chemist would be in the matter, and nothing more. The serious thing, as we must repeat again and again, is that great countenance is given to this system by the registrars, who, on a large scale, and in accordance with instructions from head-quarters, register deaths on the strength of certificates from unqualified practitioners. It seems to us that this is an evil which the profession must enter a very solemn protest against, and which our leading corporations and the Medical Council should bring under the notice of the Registrar-General, not in the interest of the profession so much as in the interest of the public and of infant life.

## MEDICAL OFFICERS OF HEALTH AND VACCINATION.

THE present outbreak of small-pox in Manchester and Salford affords further argument in favour of transferring the control of vaccination from boards of guardians to sanitary authorities in all urban sanitary districts. Vaccination is recommended in the interest of public health, which is the only excuse for making it compulsory, and it seems but natural that the laws regulating it should be administered by the local health authorities. It appears, moreover, of the first importance that medical officers of health should be fully informed as to the number of unvaccinated children that are growing up within their sanitary districts, to become a source of danger at any time that a chance case of small-pox may be introduced into their midst. There would, then, it is to be hoped, be less chance of the neglect of vaccination, of which we are now hearing in so many parts of the country, due to the apathy of guardians in this matter. At a recent meeting of the Manchester Board of Guardians, the clerk read a letter from the Local Government Board, calling attention to the present outbreak of small-pox in the city. The guardians and their clerk expressed surprise at the intelligence, and their conviction that the Local Government Board had made a mistake. The medical officer of health of the city, however, who was in attendance, informed the guardians that the disease had been prevalent in the city for some weeks, and that of 80 beds in the Monsall Hospital, 52 were filled with small-pox patients. He also stated that of 3212 children born in Manchester from 2nd October to 25th December, 1875, only 867 were vaccinated by the public vaccinators. This statement appears almost incredible, but it undoubtedly signifies great neglect of vaccination. The medical officer of health attended to ask the Manchester guardians to offer increased facility for vaccination, and afford him assistance, in the way of further hospital accommodation, to enable him suc-

cessfully to combat the disease. We have little doubt that the Manchester guardians will give the assistance required, but this too much resembles locking the stable after the steed is stolen. Such an administration of the vaccination laws is wanted as will prevent their being neglected, and this, we think, would be most effectually obtained by placing vaccination in the hands of sanitary authorities, urban as well as rural, under the immediate control of medical officers of health.

## TESTIMONIAL TO DR. FAYRER, C.S.I.

DR. FAYRER seems to have been welcomed back to Calcutta by all classes, European and native, without distinction of colour or creed. As our readers are probably aware, he was for a long time intimately associated with the Medical College and Hospital of Bengal in the metropolis of British India, Calcutta. He was the first surgeon of the College Hospital and the professor of surgery at the College, and it was during the fourteen years that he was connected with those institutions that he mainly acquired his large surgical experience, and made the reputation that he enjoys in this respect, besides being actively engaged during the whole of that period in educating and training a large number of graduates for the medical profession. It must have been most gratifying, therefore, to Dr. Fayrer to find himself welcomed with so much enthusiasm by his late colleagues and pupils—by the medical profession, in short—on his visit to the scene of his former labours. We gather from the local papers that the opportunity of his visit to Calcutta as physician to the Prince of Wales was embraced for recognising the services which he had rendered to medical science, and the efforts he had made to raise the status of the native medical service. At a large and influential meeting, held in the theatre of the Calcutta Medical College, Dr. Fayrer was presented with an address and testimonial, consisting of a silver tea service. At the conclusion of this meeting Dr. Fayrer went to the Medical College Hospital, where he performed some operations amidst a crowd of professional men.

## NEW ZEALAND.

DR. ROBERT HALL BAKEWELL, of Dunedin, New Zealand, has sent to us some statistics, which we are glad to put upon record. These statistics are gleaned chiefly from a Parliamentary Paper and the outcome of a speech delivered by the Minister of Immigration in the House of Representatives at the end of last year. From these sources it appears that since immigration was actively promoted (about five years ago) up to September 30th last year, 61,312 immigrants were sent from Great Britain to the colony; of these 43,406 were adults, 15,287 children from 1 to 12 years of age, and 2629 infants under twelve months. It appears that of the adults 150 died during the passage, of the children 1094, and of the infants 502; or at the rate of 3·5 per 1000 for the adults, 7·5 per 1000 for the children, and 190 per 1000 for the infants, this last (as Dr. Bakewell remarks) being equal to an annual mortality of 760 per 1000. Some also die in port, or die in hospital soon after arrival. This is certainly a cheerless retrospect. According to Dr. Bakewell, overcrowding on board ship is the chief cause of the mortality, and it is a mistake to take out large families of little children. The discomforts at sea, in spite of all the careful preparations made here by the New Zealand Agent-General, are very great; and house-rent, locomotion in any variety, and clothing are very dear in the colony. An analysis of the sanitary statistics of the principal borough towns of New Zealand has been lately published by the Registrar-General of the colony, and show that at Christchurch the deaths in 1874 were 25·81 per 1000 of population, at Wellington (the capital) 24·96, Dunedin 21·99, and Auckland (exclusive of the hospital) 16·88 per 1000. These towns all have less than 20,000 inhabitants, and hence the mortality is high. The proportion of the different classes of disease is about the same as in England; zymotic diseases form about a third of the total, and tubercular diseases more than 12 per cent. The author remarks, "In fact, preventable diseases are just as prevalent here as at home, notwithstanding that the people are far better fed. The love of close stuffy rooms, the dearness of building materials and labour, causing rents to be enormous, and the constant overcrowding that exists, together with the close and unventilated school rooms in which the children are educated, these cause most of the mortality, and drink does the rest." These observations, specially noteworthy as they are, by no means militate against the natural climatic advantages of New Zealand as a colony, but, coming from a professional man who has had much experience in the country, are well worthy attentive consideration at the hands of all concerned in emigration.

## THE ITALIAN MEDICAL ASSOCIATION.

MEDICINE, as a science and as an art, is advancing in Italy, her professional journals are improving in quality as well as augmenting in numbers, and a more practical spirit presides over her medical congresses. The next of these is to be held in Turin, from Monday, the 18th of September, to Friday, the 22nd, inclusive, and will comprise certain features hitherto unrepresented in medical associations generally. There will be three great sections—medicine, surgery, and hygiene; the first including, for this occasion, physiology, mental disorders, and the diseases of children; the second, obstetrics, ophthalmic surgery, and syphilography; while the third has yet to decide on its special sub-sections. Communications must be announced two months before the meeting, and must not exceed twenty minutes' reading, and, in the discussion which will follow, no speaker may prolong his remarks beyond ten minutes. This latter regulation is an excellent one in Italy, where the *dicendi cacoethes* is so common as to have received the name of a "determination of words to the mouth." Another feature of the congress will be a National Medical Exposition of (1) the most recent surgical instruments in orthopædic appliances; (2) the chief medical works, periodicals, and journals of the last biennium; (3) new medicines and pharmaceutical preparations; (4) histological and pathological preparations; (5) representations, in photography, plaster or drawings, of rare maladies or special deformities; (6) and lastly, new aliments and means of nutrition for patients and convalescents.

## TYPHOID FEVER AND SANITARY ORGANISATION IN BLACKBURN.

TYPHOID FEVER, said to be of a very malignant type, has been for some time fatally prevalent in and around the borough of Blackburn. According to the last three Quarterly Returns of the Registrar-General, the annual death-rate in Blackburn was equal to 25 per 1000 during the first nine months of 1875, and exceeded by about 1 per 1000 the average death-rate during this period in fifty large English towns. The death-rate from the principal zymotic diseases in Blackburn was, however, somewhat below the average, although equal to about 15 per cent. of the rate from all causes. An epidemic of typhoid fever is now so clearly understood to be the result of sanitary neglect that it becomes interesting to inquire what the urban and rural sanitary authorities of Blackburn have done in appointing medical officers of health under the Public Health Act of 1872, and what value they put upon the professional re-

sponsibility as regards the health of their districts. We find that the Town Council of Blackburn have appointed a local practitioner, who receives £25 a year for the sanitary charge of an urban population of more than 80,000 persons; the guardians of the rural portion of the union have appointed their three district medical officers as medical officers of health, at salaries of from £15 to £20 per annum. Under such a system of nominal medical officers of health and indifferent sanitary authorities, real progress in health matters is impossible, and typhoid fever epidemics will recur.

## THE BOUNDARIES OF LARGE TOWNS, AND SANITARY STATISTICS.

THE recent addition of Brighton and Plymouth to the Registrar-General's list of large English towns for which vital statistics are published in his weekly return, has given rise to a good deal of discussion as to the arbitrary and natural boundaries of towns. Unreasonable suspicion has been expressed in some quarters that figures should be published in this return for Brighton, exclusive of Hove, and for Plymouth without taking any account of Devonport or Stoke Damerel. It does not appear to be generally known that the Registrar-General has invariably adopted, for the purposes of his return, the municipal borough boundaries of each of the nineteen provincial towns therein dealt with. This course is naturally open to some objection on the ground that so many of our large towns have long since outgrown their municipal boundaries; this objection is, however, far outweighed by the advantage which is derived from the fact that the published statistics relate to areas which correspond with the urban sanitary districts in each case. One of the principal uses of sanitary statistics has been to awaken in local sanitary authorities a due sense of their responsibility in health matters. The influence and utility of these statistics would therefore be weakened if figures were published for the natural boundaries of our large towns, including areas under more than one sanitary authority. There is a strong probability that the municipa-borough of Brighton may in time be extended so as to include Hove, and it would be an undoubted advantage if Plymouth, Devonport, and Stoke Damerel could be incorporated into one municipal borough, and thus become one urban sanitary district. At present these extra-municipal portions of Brighton and Plymouth are under distinct sanitary authorities and medical officers of health. A revision and enlargement of the boundaries of most of our large towns are urgently called for, and would be an undoubted advantage to the sanitary welfare of our urban population, as it is in every way desirable that the suburbs of a town should be under the same system of health organisation as the main portion of the town itself.

## ACONITE.

DR. OULMONT recently communicated to the Académie de Médecine the results of a careful investigation into the "pharmaco-dynamic" properties of aconite. Struck by the variation in the action of different preparations, he instituted a series of experiments on dogs and comparative observations on man, with the object of ascertaining what are the active parts of aconite and what are the inactive portions, and of determining how far this activity is influenced by the physical condition of the plant, by its source, and by the way in which a preparation is made from it. He found that the action of aconite was largely influenced by each of these conditions. Speaking generally, the leaves, stalks, flowers, and seeds have a very slight and uncertain action; that, as was well known, the roots contain the active principle, but that the activity of the roots varies according to their source. Garden aconite is less active than that of the mountains, and that of the Vosges less active than the Swiss plant.

Alcoholic extracts of the fresh leaves, stalks, flowers, and seeds are, he found, almost inert in small doses. Thirty or forty grammes may be given to an animal and fifteen or twenty to a man without appreciable effect. Alcoholic extracts of the fresh roots are far more powerful, but so variable in their effect (owing, he believes, to the varying amount of water in the roots), that they should only be prescribed in very small doses. The tinctures of the root are also active enough, but very uncertain. Much the most reliable preparation, he concludes, is the extract of the dried roots. It contains all the active principles of the plant, its action is equal and regular, and it may very conveniently be administered in small quantities. A third of a grain a day may be administered, and gradually increased to one grain or even more.

## SHEFFIELD PHARMACY.

AT the annual dinner of the Sheffield Pharmaceutical and Chemical Association, held a few days ago, the criticism on the productions of some of their trade, to which we alluded last week, roused much indignation. Their anger found the most violent expression in a speech made by Dr. J. C. Hall. We cannot but think that much of their remonstrance is uncalled for and unreasonable. That the scrutiny which is applied to all articles for consumption—food, water, air—should pass compounded medicines by as unworthy of notice or beyond the pale of criticism is neither fair nor just. That the test should be applied where a failure was most probable is but the rational method of applying a test of whatever nature. Experience fails to show that minuteness of consequent gain is any security against fraud. Dr. Hime, who had written some of the prescriptions for the analyst from which the medicines tested were made up, vindicated, in a very fair and impartial speech, the fairness of the test, and pointed out the absurdity of the assumption that the chemists of Sheffield as a body had been subjected to any attack.

## ASSAULT BY A LUNATIC.

WE regret to hear that Dr. T. N. Brushfield, the medical superintendent at Brookwood Asylum, was seriously assaulted by a patient on the evening of Thursday, the 20th inst. An epileptic having become suddenly turbulent, as so frequently happens when the recurrence of periodic convulsive paroxysms is delayed, Dr. Brushfield, according to his practice, paid a personal visit late at night. The man being much excited, and beating the door of his room, the attendant was directed to place his lamp on the ground, so that the light should be directed into the apartment when the door was opened. Unfortunately this instruction was not successfully carried into effect, and when the door was thrown open Dr. Brushfield found himself face to face with an enraged lunatic, who could see better than he could be seen. To add to the evil, a chamber utensil had been incautiously left in the single-room, and the patient was thus provided with a most formidable weapon, which he instantly brought down with great force on the head of the superintendent. But for the circumstance that Dr. Brushfield happened to be wearing a strong hat the injury might have been fatal. As it was he lost a great deal of blood, and was confined to his room for some days. We are glad to hear Dr. Brushfield is now much better, and able to resume his duties. The patient was relieved of his superfluous excitement by a moderate purgative, and sat peacefully smoking his pipe in the corridor the following day. It is a rule of this well-conducted asylum that no allusion is

allowed to be made, in the hearing of a patient who has attempted escape or committed any act of violence, to the circumstance of his outbreak. It is, in fact, regarded as the symptom of a disease, not an offence. Unless, therefore, the patient himself happens to remember the occurrence, and refers to it, nothing is said. The system is humane and rational.

## INFECTION BY SPLENIC FEVER (MILZBRAND).

AT a recent meeting of the Medical Society of Koenigsberg, in East Prussia, Dr. Baumgarten, of the University Hospital, demonstrated the preparation of a spinal cord in which the sheath and the connective tissue around the bloodvessels of the grey substance, and in a lesser degree also of the white marrow, presented a peculiar glossy swelling. The individual from whom the specimen was taken showed in his blood a large quantity of bacteria, especially numerous in the blood of the heart, the same being also present in the other liquids of the fresh tissues. These bacteria had absolutely nothing to do with those in decomposing bodies, but were remarkably similar to a kind of parasitic forms which Dr. Baumgarten some time ago had found in the blood of horses affected with milzbrand. On inquiry, it was ascertained that the patient, three weeks before his fatal disease, had been rubbed by his wife with horse grease which she had bought at a knackery. At this same establishment those horses had been dissected from which the examined blood was obtained. The skin of the sick man was not diseased. Dr. Baumgarten leaves it doubtful if the affection of the spinal cord was caused by the parasitic growth in the blood and juices of the body. According to a note in the *B. Klin. Wochenschr.*, the paper will be published *in extenso* in the *Archiv fuer Heilkunde*.

## WHAT DOES IT MEAN?

WE make the War Office a present of any additional publicity which the following advertisement may gain from its appearance in this place:—

"ARMY MEDICAL DEPARTMENT, 26th Jan. 1876.—The Examination of Candidates for Commissions in the Army Medical Department, which was intended to be held at the London University, Burlington-gardens, on the 14th of February next, has been postponed for the present. Due notice will, however, be given as soon as another day shall have been fixed."

What is the meaning of the riddle? Is it that candidates were so shy and so much below in number what was anticipated that the holding of a competition examination would have been a farce? or is it that the War Minister has suddenly determined to redeem the pledge he gave some time ago to Dr. Lush in the House of Commons to introduce certain changes which would ameliorate the condition of the army medical service? or is it both these causes, the latter depending on and being the result of the former?

## ANOTHER HINT TO THE HARVEIAN SOCIETY.

NOTHING, seemingly, will serve our Italian *confrères* but they must wrest from our English Harvey the honour of having discovered the circulation of the blood! We lately called attention to the fact that the Medical Academy of Rome had set on foot a subscription to erect a monument, in the university of that city, to Andrea Cesalpino, as the real author of that greatest of all feats in the annals of physiology. The movement has already made some way, and, probably, will have taken the form of a bust to Cesalpino, with a suitable inscription, in the Roman University, before the next Harveian orator shall have vindicated the "hero and ἐπώνυμος" of the society from the claims of this resuscitated rival. In Italy herself, however, Cesalpino's priority has just been disputed, and that in favour of no less a man than the poet of the "Divina Commedia." In the *Libertà*—a Roman evening journal—of the 22nd inst., we read the following announcement:—"The Pontifical Tiberine Academy will hold a meeting on Monday the 24th, in the Odescalchi Palace, when Prof. Domenico Venturini will demonstrate that Dante anticipated by several centuries the English Harvey in clearly determining the various functions of the blood in the human body." We await the Professor's demonstration with some curiosity—not to say amusement; albeit, we expect it will share the fate of Dr. Archibald Pitcairne's "demonstration" that Harvey's real anticipator was no other than the Father of Medicine himself—Hippocrates!

## ATTENDANCE OF MEDICAL OFFICERS AT BOARD MEETINGS.

THE Fulham Board of Guardians are somewhat dissatisfied with their medical officers for non-attendance at the board meetings. Some of the guardians would like them to attend monthly, others once in two months. The chairman's feeling ran high on the reading of letters from the medical officers, giving reasons for non-attendance, and he declared that he "should never be satisfied till the medical officers were done away with altogether," whatever that might mean. We trust that all the chairman meant was that he would never be satisfied till the attendance of the medical men on board meetings was done away with altogether. The medical officers are supposed to attend patients, not guardians. It is true that it is the duty of every medical officer to attend any meeting of the board of guardians when requested by them to do so; but this presupposes that they shall not be often asked to do so, but only for special reasons. If such an exaction as a monthly attendance were made, it should be stated in the original contract.

## THE UTERINE SOUFFLE AND THE FŒTAL HEART.

SINCE Frankenhauser published the result of his observations on the rapidity of the fœtal pulse in the diagnosis of the sex of the fœtus, a considerable interest has attached to this subject. The result of investigations has been in some cases, but not in all, to confirm the observation of Frankenhauser. Dr. Cumming has made careful inquiries into this subject, and finding that the relation stated by Frankenhauser did by no means invariably exist, turned his attention to other aspects of the matter, and has come to the following conclusions:—1. That the indications resulting from auscultation of the fœtal heart are of a certain value in aiding us to diagnosis of the sex of the fœtus in utero, but cannot solely be relied upon. 2. That there seems to be a relation (or ratio) between the weight and the pulsations of the fœtus in utero. 3. That for the weight per pound, the pulsations are slower in the male than in the female. 4. That there is no relation between the fœtal and maternal pulse.

## THE COLLEGE OF PHYSICIANS.

WE understand that the College of Physicians, at its meeting on Thursday evening, rejected the proposal to confer the title of "Doctor" upon non-graduate members and fellows of the College.

AT a late meeting of the New York Medical Society a paper was read by Dr. E. L. Keyes, "On the Effects produced upon the Blood of Syphilitic Patients by Treatment with Mercury." The results obtained by investigation mainly corroborated what had been noted by European physicians. In brief it was found that, in syphilis, mercury, in small doses,

continued for a short or long period, increase the number of red blood-corpuscles and maintains a high standard of the same. It decreases the number of the red cells when given in excess, especially in hospital patients. Generally, mercury, in small doses, acts as a tonic, and increases the weight of the body. In the discussion which ensued after the reading of the paper, Dr. Bumstead (a distinguished authority) deprecated the steady and long-continued use of mercury in syphilis; in his hands it had proved very unsatisfactory. The plan of treatment which he now adopts consists in the vigorous use of mercury for limited periods of time, and then the allowance of an interval, during which no remedy is taken. After a certain length of time, variable in different cases, a return is made to the mercury, when it is again pushed strongly. He greatly prefers this mode to the prolonged use of mercurials in small doses as recommended by so many writers on the subject. Dr. Taylor also believed that, in order to obtain the best effect of mercury in the treatment of syphilis, it should be omitted for a certain length of time and then resumed.

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THE King and Queen's College of Physicians have addressed a memorial to the Chief Secretary for Ireland with reference to the contemplated abolition of the Medical Commissionership of the Irish Local Government Board. After pointing out that not only has the extension of the Poor-law medical service proportionally increased the necessity for a medical commissioner, but since the institution of that service in 1851, and reconstruction of the Irish Poor-law system, several new and important duties have from time to time been imposed upon the Board by advancing legislation, duties which are to a great extent of a technical and professional character, the memorialists submit that it would be highly detrimental to the public to deprive the Local Government Board of the constant presence, assistance, and influence of a medical commissioner. We would fain hope that the protest of the Dublin College of Physicians will receive the attention it deserves at the hands of the Government.

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THERE are very few spots on our frigid coasts where phthisical invalids may winter with anything approaching comfort, and perhaps, with all its drawbacks, a suburb of the metropolis is as good a place as any for those who cannot afford to go to a summer clime for the winter months. Any comparative meteorological records which show a place to have a fairly dry and equable temperature during the most trying periods of the year will immediately secure the attention of physicians and patients. In the annual report of the sanitary condition of Llandudno in North Wales for the year 1874, Dr. James Nicol publishes some tables showing that the mean temperature of the town during the first four and last two months of the year was higher than that of either Osborne or Bournemouth—markedly so in December, while the mean degree of humidity of the air was less.

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WE hear that some of the most eminent members of the dental profession have met together with the view of forming a society to which only fully qualified surgeons shall be admissible. This society will not be antagonistic to any other existing one, the sole object of those constituting it being to improve the status of dental surgery, both with regard to professional ethics and education. Hitherto, many of the fully qualified practitioners, who have devoted their attention to the specialty of dental surgery, have felt that they have been unjustly held responsible for much that they have disapproved on the part of those practising dental surgery with an inferior, or even, in too many instances, without any qualification whatever.

AN unfortunate lunatic, who died in the Prestwich Asylum a short time back, seems (says the *Standard*) to have lived neither wisely nor well. A post-mortem examination led to the discovery of no fewer than 1841 articles in his stomach—viz., 1639 shoemaker's sparables, six 4-inch cut nails, nineteen 3-inch cut nails, eight 2½-inch cut nails, eighteen 2-inch cut nails, forty ½-inch cut nails, seven ¾-inch cut nails, thirty-nine tacks, five brass nails, nine brass buttons, twenty pieces of buckles, one pin, fourteen bits of glass, ten small pebbles, three pieces of string, one piece of leather three inches long, one piece of lead four inches long, and one American pegging-awl—the total weighing 11 lb. 10 oz.

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A CONFERENCE of gentlemen interested in the pressing question of noxious vapours and their influence upon health was held at Warrington on Wednesday, under the presidency of Colonel Egerton Leigh, M.P. It was alleged by the various speakers that vegetable and animal life were injuriously affected by proximity to chemical works, and Government were called upon to interfere in the matter, and particularly to enforce a rigid system of inspection, and to compel manufacturers to consume their own vapour. A deputation was appointed to wait upon the President of the Local Government at an early date, when the adoption of remedial measures will be urged upon him.

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THE rate of mortality in London last week was 27 per 1000 annually. The deaths, amounting to 1782, included 52 from measles, 60 from scarlet fever, 7 from diphtheria, 95 from whooping-cough, 20 from different forms of fever, 16 from diarrhœa, and 491 referred to diseases of the respiratory organs. Different forms of violence caused 71 deaths in the period. On the 22nd inst. the fever and small-pox hospitals at Homerton and Stockwell contained 267 patients, 169 of whom were under treatment for scarlet fever.

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IN consequence of the determination of the Government to pull down the present barracks at Knightsbridge, and, if possible, rebuild them on the same site, the committee organised to bring about the improvement of the locality met last week in considerable numbers at the residence of Lord Alfred Churchill in Rutland-gate, when it was determined to use every means in their power to prevent the Government building new barracks on the site.

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WE would again draw attention to the discussion which is about to take place at a meeting of the Obstetrical Society on February the 2nd, "On the Post-mortem Diagnosis of a Nulliparous Uterus." The subject is an important one from a medico-legal point of view, and will, we trust, receive full and authoritative consideration.

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PROFESSOR RAWDON MACNAMARA has been appointed for the ensuing year the representative of the Royal College of Surgeons in Ireland upon the General Council of Medical Education and Registration.

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DR. RICHARD DOHERTY, who died recently, was the first Professor of Midwifery in the Queen's College, Galway, being appointed on the foundation of the colleges. The emoluments of the professorship are about £350 per annum.

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SCARLET FEVER is reported to have broken out in the quarters occupied by the married policemen at Chatham dockyard. A mild sort of quarantine has been placed over the infected buildings.

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IT is rumoured that, pending the issue of new regulations, the War Office authorities do not intend appointing any more surgeons to volunteer corps.

We would remind members of the profession interested in the subject, of the debate on Syphilis to be commenced at the Pathological Society on Tuesday next.

## THE FATAL COLLISION AT ABBOT'S RIPTON.

Although perhaps surpassed in magnitude by many catastrophes of a similar nature, the recent accident at Abbot's Ripton has a horror of its own. Not only had the occupants of the Scotch express to endure the shock due to the collision with a goods train, but immediately afterwards the overturned carriages full of injured and frightened occupants were dashed into by the Leeds down express. It was this last catastrophe that caused the great mortality. The high proportion of deaths relatively to those injured shows the severity of the accident, which extended over a comparatively small area, so to speak, of the two trains affected by the collision, the stress of the disaster falling chiefly on the foremost carriages of the Scotch express. On looking over the list of injuries received, we notice that injuries to the legs are especially frequent. Injuries to the legs in the present case seem to have been caused by the forcing together or shutting up of the seats by the violence of the collision. That this was the case is strengthened by the experience of Mr. Oldham, brother to the surgeon of that name at Huntingdon, who was travelling in the same carriage as the Russian Ambassador's valet. He happened to have his legs on the seat of the opposite side at the time the accident occurred. The carriage seemed to close in on him, and then, after the accident, he found himself lying on the ground near the wheels, shaken but not wounded. The valet, however, must have had his legs jammed between the seats; he sustained a compound fracture of the left leg, and severe contusions of right, and injury to the right ankle. The conduct of the people of Huntingdon has been beyond all praise, and everything has been done to afford relief to the sufferers and sympathy with distressed friends. The medical men started at once to the scene of the accident, though, owing to the snow and some difficulty in despatching the engine on which they were forwarded, they were three-quarters of an hour before they reached Abbot's Ripton. Several medical men from Peterborough also rendered valuable assistance. The house-surgeon of the Huntingdon Infirmary (Mr. Greenway) took down with him a supply of bandages, splints, and all necessary appliances; whilst Dr. Michael Foster, the consulting medical officer, remained in the infirmary to make the necessary provision for the reception of the injured. So active was he in his exertions that, before the first batch of sufferers arrived he had thirty beds in readiness if required. Notice was also sent to the George Hotel, and although the extent of the accident was not known, the proprietor had fires lighted throughout the house, and supplies of hot water got in readiness, both of which proved a great boon not only to the actual sufferers, but to the others who had been exposed to the unusually severe weather. The injured were attended to at the George, the Fountain, and at the Infirmary by Dr. Michael Foster, Mr. Oldham, Mr. Lucas, Mr. Holderness, and Dr. Davies. Many whose injuries were comparatively slight were able the next morning to proceed to their homes. The dead were carried to the infirmary, and placed in the out-patient room—a proceeding we hardly think judicious, and of which the surgeons complained. The moving backwards and forwards, caused by relatives and friends identifying the bodies in so small a hospital, prevented that absolute quiet so requisite to patients suffering from severe nervous shock; nor do we think it was prudent to have so many dead bodies brought into a comparatively small hospital, where there were many suffering from recent wounds. The dead-house, we should have thought, would have been the proper place; or it would have been better if the company had given up the use of a waiting-room at the station for the purpose. The friends of the deceased, however, were the gainers in the present instance, and nothing could surpass the taste with which this improvised mortuary was arranged. The following cases are still under treatment at Huntingdon:—

Mr. R. Burdon-Sanderson, aged fifty-seven, at the George Hotel, under the care of Dr. Foster, Dr. Davies, and his brother, Dr. Burdon-Sanderson, of London: Comminuted fracture of right tibia and fibula; two incised wounds in popliteal space; fracture of right arm and right clavicle. Mr. Sanderson's case, although hitherto progressing favourably, is one of considerable anxiety.

Mrs. R. B. Sanderson: Severe contusions to back and wrist; considerable mental depression.

Mr. Andrew E. Oudet, at the George Hotel, under the care of Mr. Holderness: Scalp wound on right side of head; comminuted fracture of right ulna; hæmorrhagic extravasation over right buttock. Going on favourably.

Mr. Abbs, at the George Hotel, under Mr. Holderness: Contusion of both legs below the knee; general shock.

The following account of the cases in the infirmary is condensed from the notes of Mr. Greenway and Mr. Godfrey, the house-surgeons.

Mr. Philip Lelich, valet to Count Schouvaloff: Compound comminuted fracture of left leg, with small external opening, and considerable extravasation; also severe contusions and pain in right ankle-joint and leg; slightly scarred about face and hands. Mr. Lucas is treating this case on the "antiseptic method," with the carbolic spray and gauze. Up to Monday he seemed to be doing pretty fairly, but on Monday the temperature rose to 105°, and the pulse above 150. At the same time a suspicious dusky blush began to creep up the inner side of the thigh. On Tuesday morning the temperature was 103°, and in the afternoon 102·4°; pulse 120, and the blush certainly fainter in colour, and had not spread.—Thursday morning: Passed a good night; temperature 101°, generally improved.

Miss Calder, aged sixteen: Two wounds over right eyebrow, about one inch and a half long; a severe contusion and sprain of the left elbow-joint; no crepitus on flexion or extension; also pain in lower part of back and right leg. The pain in back has increased; she also suffers from cramp in the legs. Ice-bags have been applied, which have given a little, but not much, relief. She is also suffering from bronchitis. Pulse 120, very restless.

Miss Kellie: Two scalp wounds over head, with extravasation of blood in eyelids; also a large bruise over right side of back; very restless.

Cattley, driver of the express: Crushed ungual phalanx of little-finger and second phalanx of ring-finger; middle finger crushed, which was amputated by Mr. Lucas; three cuts above eye; sprain of knee-joint with effusion into it; bruising about outer and posterior aspect of right leg and thigh.—Jan. 24th: Has had a good night, but complains of deafness in the right ear; can only hear a watch when placed within two or three inches of him.

Mr. Mare, aged thirty-six: On admission pale, lips blanched and cold; no pulse could be detected at wrist. He had a wound extending above the ankle to three inches below the knee (left leg); the whole outside and back of the leg had been denuded of skin, and the gastrocnemius and soleus muscles cut across and contracted into a solid lump; the tendon of the tibialis anticus muscle was completely dissected out, and the fibula smashed in its entire length; there was slight venous oozing; he also complained of cramp in the right leg. Passed a bad night. Mr. Christopher Heath, Mr. Carr Jackson, and Mr. Lucas, with the staff, saw him, and after consultation it was decided that no operation was justifiable. He died at ten o'clock on Sunday morning, forty hours after the accident, no reaction having set in.

The following is a brief account of the chief external injuries noticed on the dead bodies at the time of their admission at the infirmary, taken from the notes of Dr. Greenway, house-surgeon. For obvious reasons we have not given the names:—1. A young man about twenty years of age; injuries to face and mouth, fracture of left upper jaw, dislocation of right foot. 2. Female aged seventeen; face crushed, hæmorrhage from left ear. 3. Female aged nineteen; great bruising of face and chest, fractured ribs. 4. Female about fifty years of age; fracture of ramus of lower jaw, fracture of temporal bone, right clavicle broken, severe bruising of left knee. 5. Female; extensive scalp wound, upper lip cut through, three large deep flesh wounds on

inner side of right leg. 6. Female; compound fracture of left tibia, simple fracture of right, incised wound of left thigh, and fracture of right femur. 7. Female aged about forty; left temple pressed in, right side of chest compressed, and ribs broken, compound comminuted fracture of both legs, which were simply hanging by shreds. 8. A boy; abdomen laid open, pelvis fractured, compound fracture of left leg, and compound comminuted fracture of femur. 9. A boy; compound comminuted fracture of left femur, severe scalp wound, and great bruising of the face. 10. A young man about twenty years; severe wound of temple, and whole side of face crushed in, simple fracture of both legs. Two bodies were removed before an examination could be made.

## THE ROYAL INFIRMARY FOR CHILDREN AND WOMEN.

THIS hospital, which was established in 1816, and is consequently the oldest institution of its kind in London, has recently been renovated and enlarged, and will be reopened on the 12th of February by the Lord Mayor and Sheriffs, who will attend in state for the purpose. The recent alterations are of so radical a kind that they almost amount to a reconstruction. When they were contemplated application was made to the Duchy of Cornwall, upon whose estate the hospital stands, for the purchase of the freehold—a favour which was at once conceded on very liberal terms. The building, like many others in the Waterloo-road, has this peculiarity, that its basement consists of two storeys. Formerly the lower basement was entirely unused, but it has now been floored with asphalte to keep it free from damp, and in it are situated the kitchens, store-rooms, and other similar offices. The upper basement has been completely remodelled, and contains the out-patient department, the dispensary, and the post-mortem room. Excellent consulting-rooms have been made, and a spacious waiting hall for out-patients has been provided, and the rooms have been so planned that the in-coming and out-going streams of patients are completely separated. A special entrance and staircase have been provided for this department, and great care has been taken to shut it off as completely as possible from the rest of the building. We think that a little more artificial ventilation might have been arranged for, and we would strongly advise the authorities to introduce a Tobin's tube into each of the out-patient rooms, the expense of which would be but trifling, and in no way to be compared to the advantage which would accrue. We would also advise the substitution of a light iron railing for the present heavy cement balustrade enclosing the "area," and which shuts out too much light from the out-patient basement. The ground floor is given up to the resident staff, and the secretary's office and board-room.

The first floor has not been altered in its main features, and contains, as heretofore, one large and two small wards capable of holding twenty-five beds. All above this is new. The second floor contains one large ward, two small ones, and a separation ward into which children are to be at once removed in case of their being attacked by infectious disease. On the roof there is an attic storey containing nurses' bed-rooms, but the greater part of the roof has been concreted and walled in, and is intended to serve as a playground for convalescent children during the summer months. The wall round it will be high enough to protect from the wind, and from this exalted situation it will be possible to enjoy something like fresh air, and those who are tall enough to look over the parapet will have the advantage of a most extensive view, and certainly the best prospect of St. Paul's Cathedral which we have ever seen. We congratulate the authorities on the originality and excellence of this simple idea. At the back of the hospital a new turret has been built containing bath-rooms, waterclosets, and sinks for each floor.

There is now ample accommodation for fifty in-patients. The out-patient department was reopened on the 3rd inst., and the committee have adopted the plan of charging one penny for each attendance. This plan has acted very well up to the present time, and it is hoped that the sum raised in this way will be nearly sufficient to pay the drug bill.

A special day has been set aside for women suffering from uterine diseases, and this department will be under the care of Dr. George Roper.

A vacancy in the staff has lately occurred through the resignation of Dr. E. Sparks, which has been filled by the election of Dr. Greenfield, the pathologist of St. Thomas's Hospital.

The hospital has much to be congratulated on the energy of the members of its managing committee, who are one and all indefatigable for its welfare. The treasurer, Mr. Eastwood, has lately contributed £200 in addition to his valuable services, and in the hands of the present secretary, Mr. Champion, the finances have undergone a steady progress. This hospital, which has always basked in the sunshine of Royal patronage, and which already numbers the Queen and the Prince and Princess of Wales among its annual subscribers, has recently enlisted the sympathies of His Royal Highness Prince Leopold. The Duchess of Westminster has contributed £200 towards the building (which is to cost about £4000). Mr. Francis Hamilton has contributed £300 towards the general expenses, and Mr. Wynn Ellis has also left £2000 to this deserving charity.

# Correspondence.

"Audi alteram partem."

## THE SO-CALLED "FUNGUS FOOT" OF INDIA.

*To the Editor of* THE LANCET.

SIR,—The article relative to Drs. Lewis and Cunningham's researches on "Mycetoma," which appeared in your last week's issue, is I think a little unfair to previous investigators. Drs. Lewis and Cunningham are therein given the credit of having distinguished a third variety of the disease "in which a number of pink granules are found," to have shown the roe-like particles "to be fat in various modified forms," and not fungoid; and further, the black morbid product "to consist in degenerated tissue, mixed, to a greater or less extent, with black pigment and fungoid elements."

Now on these points they have really in the main only confirmed what has been shown before. Dr. Carter himself calls special attention to the "pink" variety and particles, whilst Dr. Bristowe and others* have given accounts of their minute characters, and asserted their *non-fungoid nature*. As long ago as 1861† I expressed the opinion that fringe-like particles connected with the roe-like masses were "different forms of crystallised fat." Their non-fungoid nature has been more than once declared at the Pathological Society of London by special reporters on the subject—e.g., Dr. Moxon and others.

The black masses have also for some time been shown to be not only fungoid in some cases, but also pigmentary or altered blood. Drs. Lewis and Cunningham do not even seem to have met with specimens of fungus foot in which large amounts of true fungus exist. What I do think Drs. Lewis and Cunningham have done is to demonstrate more decidedly the essentially fatty nature of the fish-roe-like masses, and that the pink particles are of the nature of "concretions." That their work in regard to fungus foot, as that concerning other diseases they have dealt with, is most excellent I will be the first to acknowledge; but I think it fair to show in this instance, as they would, I am sure, admit, that in regard to mycetoma, it turns out to be chiefly confirmatory of the conclusions previously drawn by others.

There is one important point that they do not elucidate, and that is the source and origin of the black fungus, when this is present, deep in the tissues of the foot, without its having apparently been derived from germs from without. They seem inclined to think, if I do not misread their language, that the tissues, being in a degenerate state,

* See Path. Soc. Trans.
† Skin Diseases of Parasitic Origin, 1861, p. 62.

may themselves originate the fungus in some way or other. But they "hedge" this by stating that the state of the tissues may furnish a favourable condition for fungus development. This is a problem worthy of their reputation.

I am, Sir, yours obediently,

Harley-street, Cavendish-square, Jan. 22nd, 1876. TILBURY FOX.

## ON PUNCTURE OF THE TESTIS IN ACUTE ORCHITIS.

*To the Editor of* THE LANCET.

SIR,—Allow me a few last words on the subject of treating gonorrhœal orchitis by splitting up the testicle. I seem very unfortunate in expressing myself on this topic, for in correcting what I had written in my late work I intended to convey a stronger and more deliberate condemnation of the practice, whereas Mr. H. Smith seems to have interpreted my proposed correction as a modified approval of it. While I do not wish to deny that some relief to the pain does follow in some of these cases—by no means, however, in all,—I do not hold that this fact constitutes any justification for a mode of treatment which I consider unnecessary, dangerous, unscientific, and, in fact, in every point of view unjustifiable. If in my last letter I left any doubt on this point I will take care that if I ever write on this subject again I will use words which the most hasty reader cannot misinterpret. Had I had the least idea that testicles were cut open by the thousand (may we not hope, for the credit of London out-patient surgery, that there is some error in the number?) at one of our chief hospitals I should not have passed the topic over so lightly as I have. My objections to the practice are greatly strengthened by the way in which Mr. H. Smith and Mr. Royes Bell defend it. Their defence, in fact, comes to this: We know that the symptoms can usually be relieved without any incision; we know that incision does not always afford relief; we cannot explain its action, and we know its dangers; but our patients are in too great a hurry to submit to more rational and safer treatment. No severer censure, I think, could be pronounced on the practice than is contained in the account of it by its advocates. And, after all, what is the reason for all this hurry? Is there such a dearth of costermongers that it is necessary at all hazards to restore every one of these engaging creatures to the streets instantly, whether he have morbid testicle or not? Are the medical students who contract orchitis those whose absence from the schools or the dancing-rooms for a few days would be felt as a peculiarly severe loss? I must say that, as far as the public is concerned, I do not see the benefit of Mr. Smith's treatment if we allow it all the success that he or anyone else can claim for it. As concerns the patient, I hold that his ultimate interest is bound up in adhering to the well-known rules of surgery; and if there is one of those rules which commands more universal assent than another it is that "meddlesome surgery is bad surgery." If it is not necessary for the recovery of an organ that it should be split up, the surgeon who does so is committing an error; because, even allowing that in the majority of cases the patient escapes the risks of the treatment, those risks are altogether gratuitous, and to expose the ignorant out-patients of a hospital to such rough and unnecessary treatment seems to me utterly unjustifiable.

Mr. H. Smith says that in the two cases which I quoted, where the testicle was evidently destroyed by cutting into it, there is every probability that atrophy would also have followed after the ordinary treatment; but he gives no reason for thinking so. Thus I remember, when it was the fashion of some practitioners to treat delirium tremens or phagedæna with enormous doses of opium, the patient would sometimes be poisoned, and the doctor always consoled himself with the idea that the man would probably have died of the disease if he had not done so of the so-called remedy. "I only assisted nature, mum," as the doctor said to the boy's mother when he had bled him to death.

Even if we allow that all Vidal's 400 cases (if they really were 400), and all Mr. Smith's 1000 (if they really were 1000), passed over without any accident at all, these two in which the danger of the treatment is so clearly proved would be quite sufficient to my mind to banish the practice from rational surgery as an ordinary remedy for the ordinary disease.

As Mr. Smith has collected the suffrages of his own pupils on this subject, I would recommend him to collect those of the most experienced hospital surgeons of his acquaintance, and see how many of them approve of or follow the method of treating by a free incision into the body of the organ, the ordinary gonorrhœal inflammation of the epididymis and testis. The case is of course different with the medical students whom Mr. Smith mentions. If they want their testicles cut open, it may be hard for Mr. Smith to deny them their favourite luxury, especially as they seem to like it repeated again and again—*decies repetita placebit*, I suppose. I can only say that it shows that their taste is peculiar, and their surgical education has not advanced very far; and I should take great care that no lad in whom I was interested was exposed to any such proceeding.

I had not intended to say a word more on the subject after my letter in your issue of Jan. 15th, but Mr. Smith's total misapprehension of my meaning in the correction which I proposed of the passage he complained of, and the singular way in which he accounts for his following a practice which he appears to know to be meddlesome, forced me to offer some explanation of what I think ought to be the teaching of our text-books on this head. The object of a text-book I take to be to call the student's attention to the best and most advisable plans of treatment in each case. Incising the testicle in orchitis is, in my view, the worst and the most unadvisable; and I think Mr. Smith will find few surgeons of experience who think otherwise.

I am, Sir, yours, &c.,

Great Cumberland-place, W., Jan. 25th, 1876. T. HOLMES.

*To the Editor of* THE LANCET.

SIR,—I had not the opportunity of enclosing in my last letter to you the following valuable communication from Mr. Macnamara, surgeon to the Westminster Hospital, on the subject of the treatment of orchitis by puncture of the testis. I may mention that one of my pupils informed me that Mr. Macnamara had had considerable experience of this method of treatment. Accordingly I wrote to that gentleman, and he kindly sent me a letter, from which I take the following extract, at the same time informing me "You are quite at liberty to make any use you like of this communication." The evidence is the more valuable as, although Mr. Macnamara is an old King's College student, he had left that institution for India long prior to the time I brought the treatment in question before the profession in this country, and thus had not been in any way influenced by seeing me adopt it:—

"As to puncturing the testicle in orchitis I have practised this treatment over and over again in private and hospital practice since I first read your paper on the subject, and there can be no possible doubt as to the great relief it gives, and how rapidly all inflammatory symptoms often subside under this treatment. I have certainly met with exceptions to this rule, I should think in about one case in six, but I never saw the slightest harm follow a puncture of the kind, and say without fear of contradiction that if Mr. Holmes or anyone else will employ this method of treatment in orchitis, they will discover that it is a most valuable aid to the cure of many such cases, and I am as certain they need fear no ill consequences from the result of the puncture."

I am, Sir, your obedient servant,

Wimpole-street, Jan. 25th, 1876. HENRY SMITH.

*To the Editor of* THE LANCET.

SIR,—I have been much interested in the correspondence which has appeared in your valuable journal during the past fortnight on the treatment of orchitis. I cannot, like my friend Mr. Henry Smith, congratulate myself on having, by operative procedure, treated over a thousand cases, but, both in public and private practice, I may safely lay claim to having seen and treated not a few in my time, and I must honestly confess that I have never, during a long experience, found it necessary to resort to such heroic treatment.

I am not going to condemn my friend's practice, as I have never had an opportunity of witnessing it, though in many other cases I can bear testimony to his admirable skill and dexterity as an operator. My treatment, though I cannot claim it as original, has been — and I am obstinate enough still to stick to it—more the soothing treatment —viz., rest in the recumbent position, hot fomentations, support to the testicle, and aperients in the form of the ordinary white mixture combined with colchicum wine. Should the pain be persistent, bearing in mind the treatment pursued in such cases by my friend Mr. Gay when surgeon of the Royal Free Hospital, I give, in addition, full doses of the tincture of henbane. I don't know if he has had occasion to change his opinion, but as an eye-witness of his treatment I can speak very decidedly of its beneficial effects and the relief it affords. I fancy that some years ago he published a series of papers on the subject, which met with considerable attention from the profession at the time.

In my practice all the cases treated as I have described have invariably done well. Opening the veins of the scrotum, leeching, antimony, calomel and opium, have been ignored. In some cases a thickening of the epididymis remained, but the functions of the testicle apparently were not impaired. It generally yielded to time, and a judicious course of iodide of potash. I certainly should advise all sufferers from this disease, provided they have not an itching curiosity to gaze on an organ modest Nature has so wisely and carefully concealed from mortal ken, to adopt the soothing in preference to the slashing system. With Mr. Holmes, I must express my surprise that, with such an extensive monopoly it appears my friend enjoys in this branch of practice, any testicles are left for us to look after; but, fortunately for us, an innocent lamb will occasionally stray from the fold. It may be his lucky star has been in the ascendant, perhaps otherwise.

Certainly there is a crumb of comfort for those who prefer the cutting treatment, and, as Mr. Holmes quaintly remarks, "go their way rejoicing." The probabilities are it will never trouble them more, and ultimately they may be in a position to exclaim with Susan when treating young Shandy to the window luxury, "Oh! Master Tristram, there's nothing left."

I am, Sir, your obedient servant,

G. BOBLASE CHILDS, F.R.C.S.

Finsbury-place South, Jan. 17th, 1876.

## THE LONDON COLLEGE OF PHYSICIANS AND THE TITLE OF "DOCTOR."

*To the Editor of* THE LANCET.

SIR,—I think in your article of January 8th respecting medical titles you scarcely speak of the licentiates of the Royal College of Physicians with your usual fairness. You speak as though the examination to obtain the L.R.C.P. were on a par with that for the L.S.A. This I am sure is not just, as I have passed both examinations, and can therefore confidently say that the former is much more severe than the latter. Respecting the letters from F.R.C.P. and the Old L.R.C.P. of the same date, I can only say that the fact of the Irish College of Physicians conferring the title of "Doctor" on its licentiates, as it believes legally, and the Edinburgh College allowing it by courtesy, appears to me a strong argument in favour of the London College doing so as well. "F.R.C.P." talks of the College usurping the prerogative of the universities, but for my part I can see no fitter body for conferring the degree of M.D. or the title of "Doctor" than the College of Physicians of London, seeing that it is composed of the most eminent medical men in England; and I think it would be doing great service to the profession if it obtained the power of granting degrees in medicine.

Again, "G. S.," in your issue of Jan. 15th, has evidently the idea that L.R.C.P.s are not physicians, but I believe it has been decided by the highest legal authorities that they are as much so as M.R.C.P.s or F.R.C.P.s, and it is more than doubtful if the College has any power to prevent any of its fellows, members, or licentiates from using the title of "Doctor." For my own part, I should be glad to see all doubly qualified men allowed the title, whether M.D.s or not, as I believe it would wonderfully lessen the great amount of jealousy which exists at present among different members of the profession.

Whilst cordially agreeing with your article on "Medical Degrees and the English Universities," I must say that I trust, seeing that all L.R.C.P.s of Ireland, and certainly ten out of twelve of Edinburgh, use the title of "Doctor," that the London College will allow the same privilege to its licentiates.

I am, Sir, your obedient servant,

Jan. 19th, 1876. L.R.C.P. LOND.

*To the Editor of* THE LANCET.

SIR,—In the numerous letters which have appeared in THE LANCET and other medical periodicals concerning the title of Doctor and the London College of Physicians, I have been a little amused at the cool way the Edinburgh College of Physicians has been handled. It seems to be generally believed that all licentiates of the Edinburgh College of Physicians usurp the title of "Doctor"; but such is a great error, for I hold the licence of the Edinburgh College, but do not call myself "Doctor" with it, and I know many others who do not. The well-termed "loose and demoralising attachment of the title 'Doctor'" to a licence of a College of Physicians is as much denounced by many holding L.R.C.P. Edin., as well as L.R.C.P. Lond. I know men who hold L.R.C.P. Lond. and usurp the title of "Doctor." There seems to be, however, one case in which the title "Doctor" may be used by men holding a licence from a College of Physicians—I refer to the L.K.Q.C.P. prior to the decision of the Master of the Rolls. It would be as well if the University of Dublin admitted all who hold that diploma prior to the decision to their M.D.; then there would be no excuse for any licentiate to so far forget his dignity as a physician as to usurp a dignity which only a University can grant. It has been remarked that eminent men in the profession are sometimes F.R.C.P., but not M.D., and that in such cases it would be an indignity to them should they be addressed as "Mr."; but I think any University has the power, and would admit such an eminent man to the hon. M.D. if they deemed him sufficiently eminent.

I remain, Sir, yours faithfully,

L.R.C.P. EDIN.

## IRELAND.

*(From our own Correspondent.)*

AT the meeting of the Pathological Society of Dublin on the 22nd inst., Mr. Warren exhibited an instance of fracture through the line of the epiphysis of the great trochanter. Mr. F. T. Porter showed a cast of a case of supernumerary fingers of a woman. Mr. Bennet sketched the history of the case of a young man who, when nineteen years of age, fell from the roof of a house, and suffered from fracture of the spine in the lower part of the dorsal region; the individual lived nearly three years after the accident, but suffered also from a large urinary calculus, which nearly filled the much-contracted bladder. Union of the fracture had taken place, as seen in the spine, which was exhibited. Dr. Finny showed the brain, lungs, spleen, &c. of a boy who died of acute general tuberculosis of three weeks' duration. Some of the symptoms resembled those of typhoid fever. Dr. Hayden brought under notice the intestines, heart, liver, and spleen of a lad who died of typhoid fever of three weeks' duration. The temperature was on some occasions 104°, and the pulse ranged from 100 to 120 until a short time before death, when it fell to 48. There was diarrhœa. Some of Peyer's patches were nearly ulcerated through. The solitary glands were also generally diseased. The spleen was enlarged and softened, and the liver fatty. Dr. Hayden had not as yet had time to decide whether the fat in the liver was inter-cellular or intra-cellular, not having completed the microscopical examination of the specimen. The heart had a deposit of fat upon it, but not in the tissue. The early delirium and somnolence had led to the prognosis of a fatal termination of this case.

The low birth-rate of Dublin is attracting public attention. The daily journals of this day have quotations from the return of the Irish Registrar-General, which show that in 1875 the birth-rate was but 29 per 1000 of the population, whilst that for Edinburgh was 32, for London 36, and Glasgow 39. The death-rate for Dublin was 27 per 1000, being 30 for the North district and but 17 for the Kingstown portion of the Irish capital per 1000.

The continuance of the comparatively heavy mortality in Dublin demands inquiry. Bronchitis has again and again of late proved the most serious disease from which the population has suffered. The deaths from this disease in the seven days ending December 4th numbered but 14, those in each succeeding week up to that ending on the 14th inst. inclusive, were 39, 46, 33, 45, 34, and 38 respectively. Fortunately the deaths from zymotic diseases have not been very numerous in comparison with the fatality of bronchitis; however, collectively zymotic diseases slew 34 persons in the week ended the 14th Jan. inst. It is a serious matter to find that in the last quarter of 1875 the deaths registered in the Dublin district numbered 2171, outnumbering the births, which were but 2128 during the same period. In Cork the births were but 543 to 747 deaths. In Limerick the respective numbers were 240 and 288; in Londonderry 151 and 190. In Waterford the births, 192, exactly equalled the deaths. In Galway the number was 73, and 96 deaths; in Sligo 61 and 81. In Belfast alone the town population showed an increase in this way, the births numbering 1575, to a mortality of 1235. Perhaps there has been no time in the history of the United Kingdom where the vitality of our Irish towns has reflected more discredit on the respective local authorities, and there certainly has been no period at which more has been done by medical and other sanitarians to draw public attention to these facts, and as yet with so little result. Urban and other local bodies seem afraid of interfering with petty interests in swine, foul dairies, slaughter-houses, and manure-yards, and so let these things thrive and men decay. Meantime our shipping, naval and mercantile, sadly lacks hands; our army, if manned at all, is deficient in the samples of its recruits; and continental and American manufacture competes in an increasingly successful manner with ours.

Dublin, Jan. 25th, 1876.

# Obituary.

## SIR DAVID DEAS, M.D., K.C.B.

THE death of this distinguished officer, which took place at Edinburgh on the 15th inst. at the house of his brother, Lord Deas, will be a subject of great regret to the naval medical service, especially to the senior officers of that service, as well as to a large number of officers and others with whom the late Inspector of Hospitals and Fleets had been brought into contact. Sir David Deas's service was a most honourable, long and distinguished one, and we may say without any fear of contradiction, that he enjoyed the esteem and confidence of all with whom he had to do. Kindly and courteous in his bearing, most hospitable and genial in a private, he was far sighted and able in a public capacity, as well as faithful and exact in the performance of his public duties. And Sir David Deas was a thorough man too; he could, and did, form a very independent judgment about many things and had the courage of his opinions. Then, his experience was very great. With such qualifications it was but natural that, in the opinion of the naval medical service, Sir David Deas was the man to fill the post of Director-General. At the time of Dr. Bryson's retirement from that office, Sir David Deas's manly and independent conduct—at least so we heard at the time—fully bore out the high opinion that had been formed of his character. Whatever were the conditions which he declared to be necessarily connected with his acceptance of that post, it appears pretty certain that the Admiralty Office was unwilling to concede them, for it is quite certain that he did not become the Director-General. And, perhaps for his reputation, and certainly for his own happiness and comfort, it was as well that he did not, for, with the most perfect integrity of purpose, the direction of a public service is a very onerous and difficult, as well as too often a thankless undertaking. It may be right here to remark, that, in Sir David Deas's judgment, expressed at the time to which we are alluding, the selection made by the Admiralty was the right one. Sir David Deas was in his 69th year at the time of his death. Without detailing all his services, we may say that he entered the navy in 1826 as assistant-surgeon on board the *Spartiate* stationed in the Mediterranean. In 1834 he served in the *Thalia*, flagship of Rear-Admiral Campbell, at the Cape of Good Hope. In 1836 he was promoted surgeon, and served in the Mediterranean, taking part in the operations on the coast of Syria. Afterwards he served at the Cape of Good Hope, and on the south-east coast of America; then off Lisbon, and in the Channel, and subsequently in the Black Sea. In 1854 he was promoted to the rank of Deputy-Inspector of Hospitals and Fleets, and served in the flag-ship of Vice-Admiral Dundas, under whom he was present at the engagement with the sea-defences of Sebastopol. In March, 1855, he was promoted Inspector-General, and served under Lord Lyons in the Black Sea until the end of the Russian War. He was with the fleet on the coast of China, and on the occasion of the capture of Canton in December, 1857; his services were specially mentioned by Sir Michael Seymour, the commander-in-chief. He was afterwards appointed Governor-Superintendent of the Naval Hospital, Haslar. In 1867 he was created a K.C.B., having previously in 1856 been nominated a C.B. Sir David Deas received the Syrian and Crimean medal and Sebastopol clasp, the Turkish medal, was a Knight of the Legion of Honour, and wore the Order of the Medjidie of the 4th Class. He was also in receipt of a good-service pension. Sir David was an admirable administrator, and in the Crimean war, as on other occasions, his arrangements and services in this respect were generally recognised.

## SURGEON-MAJOR DR. J. S. CHARTRES.

IT is with feelings of great regret that we record the death of Dr. John Smith Chartres, surgeon-major, late of the 43rd depôt, Chichester, and previously of the 8th Hussars, which took place at Hampstead on the 31st ult., at the age of 47 years, after a protracted illness.

Dr. Chartres was the third surviving son of Richard Chartres, Esq., of Dublin, where he was educated. At the early age of fourteen he entered the University, and having completed the usual course of studies, took his degree of B.A., and subsequently that of M.A. While an undergraduate at the university, he decided upon adopting the profession of medicine, and prosecuted his studies at the Richmond, Hardwicke, and Whitworth hospitals, where his talents and assiduity won for him the friendship and esteem of the attending physicians and surgeons as well as of his teachers. Having finished his studies in surgery, he was admitted a licentiate of the Royal College of Surgeons, Ireland, when his distinguished answering elicited the warm congratulations of his examiners. He afterwards passed no less creditably the examinations of the King and Queen's College of Physicians, and subsequently took the University's degrees of Bachelor and Doctor of Medicine. He began his professional career as medical officer of the Gosshill Dispensary, King's County, Ireland, which post he resigned to enter the army; and having been gazetted assistant-surgeon to the 29th Foot, he proceeded to India to join his regiment then stationed there. Having served several years in India, Burmah, and other foreign stations, and having meantime obtained his promotion as surgeon in the army, in the year 1867, when the British Government determined upon sending out an expedition to Abyssinia, he was appointed chief medical officer on board the hospital ship *Queen of the South*. On his return home his valuable services on that occasion were duly acknowledged, and he was appointed surgeon to the 8th Hussars. He was afterwards promoted in due course to the rank of surgeon-major. About a year ago he received his last appointment, and was stationed at Chichester, where after a brief sojourn the symptoms of that illness first showed themselves which terminated fatally.

Dr. Chartres was a man of very superior abilities, and of considerable literary as well as professional attainments, and a frequent contributor to the medical literature of the day. Nor did he limit his literary labours to professional subjects alone. They took a wider range. Indeed, we believe that on more than one occasion the quaint humour of his fertile pen appeared in the pages of our contemporary *Punch*. But it was at the bedside of the sick and suffering that his best qualities were displayed. A man of experience and vigilant

observation, his diagnosis of disease was rapid yet exact, his treatment judicious and effective; and while his gentle and affectionate manners won for him the regard and love of his patients, his tact and firmness inspired them with confidence and respect. Perhaps at no period of his life did he enjoy greater happiness than while he was attached to the 8th Hussars. At no other time did he form stronger or more lasting friendships. Never did he manifest greater zeal or greater devotion than when tending at the bedside of a sick brother-officer or one of the men. The wives and families of the soldiers will not easily forget his patient and unwearying attendance on them during their hours of illness, his words of gentle encouragement, and his thoughtful practical ways of alleviating their sufferings. Nor did he restrict his attention to their physical ailments only; his voice was to be heard regularly at the Sunday School and Lecture Room, and he took care to illustrate the lessons he taught by setting them forth practically in his life and conduct. He was held in the highest esteem alike by officers and men, by whom his memory will long be retained in affectionate remembrance.

### THOMAS MATYER ROUSE, M.R.C.S., L.S.A.

IT is with regret that we have to record the removal, by death, of Mr. Thos. M. Rouse, assistant-surgeon of H.M. Convict Service, which occurred on the 26th inst., as the result of acute rheumatism of only a week's duration. He contracted the disease in the exercise of his duty and by exposure to the inclement weather, whilst he was inspecting prisoners at exercise in the yards of H.M. model prison at Pentonville. The good and stern sense with which he was endowed fitted him peculiarly for the performance of the responsible duties which devolve upon the medical officer of a large prison, and enabled him to deal with the numerous and difficult questions which are constantly submitted to him. His untimely death has cast a gloom over the homes of the numerous officers who claimed his professional attendance in London, as well as at Dartmoor, to which he was first appointed, and the regret that his important services were most inadequately requited by the Government intensifies the sorrow of his friends for his early death.

## Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on Monday, Tuesday, and Wednesday:—

Bark, John, L.K. & Q.C.P.I., Great Crosby, Lancashire.
Betty, Samuel George, L.S.A., Park-street, Regent's-park.
Braithwaite, Samuel, Egremont.
Cameron, Charles H. H., Plymouth.
Chadwick, George Richard, L.S.A., King's Lynn.
Champneys, Henry L., New-street, E.
Davis, Henry, L.S.A., Euston-square.
Duke, Edgar, Clapham-road.
Eccles, Robert, Larne, Co. Antrim.
Evans, Charles W., Bakewell.
Evans, Frederick W., L.S.A., Cardiff, S. Wales.
Fendick, W. Rowing, L.K. & Q.C.P.I., Bristol.
Finch, Alfred, Blackheath.
Fitzgerald, James G., Cambridge-street.
Forrest, John G. S., Bessborough-gardens.
Francis, Ernest G., Sutton.
Gardner, John Arthur, Northallerton, Yorks.
Gorst, Henry, Huyton, Lancashire.
Grimbly, Richard H., Banbury, Oxon.
Harris, Stanford, L.S.A., Pendlebury, Manchester.
Hay, John Horne, Wandsworth, Surrey.
Holwell, Edward B., Leeds.
Jackson, Arthur A., Adbaston, Newport.
Jacob, Ernest Henry, M.B. Oxon., Winchester.
James, Walter C., L.S.A., Kennington-park-road.
Layborn, William K., Beverley.
McCarthy, George F., Dublin.
Mackern, George, Blackheath.
McLarty, Colin, M.B. Toronto, St. Thomas's, Ontario.
Millman, Thomas, M.D. Toronto, Woodstock, Ontario.
Moore, John, Mornington-road.
Moorhead, James, M.D. Dub., Belfast.
Naylor, Charles G. B., L.R.C.P. Edin., Calcutta.
Oram, Richard R. W., Stonehouse, Devon.
Osborne, John Henry, L.S.A., Southwell, Notts.
Paxon, Herbert E., L.S.A., Dorking.
Pickburn, Thomas J., M.B. Aberd., Sydney, New South Wales.
Popert, Adolp J., L.S.A., Limehouse, E.
Saunders, Edward A., L.S.A., Haverfordwest.
Sellon, John W. Gore, Budleigh Salterton, Devon.
Speed, Henry Andrews, Lewisham, Kent.
Startin, James, Kennington-road.
Stewart, William Robert, Russell-street, E.
Strange, Orlando B., Hammersmith.
Taunton, William W., Salisbury, Wilts.
Wade, Arthur Breedon, Ryde, Isle of Wight.
Walker, George A., M.B. Aberd., Darlington.
Weddall, William, L.S.A., Stamford.
Wise, Alfred T. T., Warlock-road.
Wolff, Alfred Abraham, Gloucester-gardens.
Wright, William H., L.S.A., Derby.

The following gentlemen passed the Primary Examination at a meeting of the New Board of Examiners on the 20th inst.:—

W. S. Andrews, H. B. Dale, W. S. Essex, and Shadforth Morton, University College; H. A. Baber, J. H. Earle, Charles Gross, G. H. Parry, and W. N. Puddicombe, Guy's Hospital; V. C. Garman, London Hospital; John Hampson, St. Bartholomew's Hospital; J. J. Harvey, Birmingham; C. E. D. Malle and F. Tibbitt, St. Thomas's Hospital; H. Watson, St. Mary's Hospital; J. K. Womersley, Guy's Hospital; and R. E. Schlesinger, King's College.

In the list of candidates who passed the Primary Examination, published in THE LANCET of last week, the name of H. T. B. Tribe, London Hospital, was omitted. Of the 103 candidates examined during last week 33 failed to satisfy the Board of Examiners, and were referred for three months further anatomical and physiological study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Jan. 20th:—

Barnes, Raglan Wykeham, Gower-street, W.C.
Feltham, William Parsons, Queen-street, Portsea.

The following gentleman passed the Primary Professional Examination on the same day:—

Roberts, John Thomas, Guy's Hospital.

WILLIAM LINDOW DICKINSON, M.R.C.S. Lond., L.R.C.P. Lond., Workington, has been placed on the Commission of the Peace for the county of Cumberland.

DEATH FROM CHLOROFORM.—We regret to add another to the long list of deaths from the inhalation of this anæsthetic. It occurred on Saturday last in Steevens' Hospital, Dublin, when a young man, aged twenty-two, was submitted by Mr. Hamilton to circumcision whilst under the influence of chloroform, and died shortly after it was performed. A coroner's inquest has been held, and from the evidence given it appears that the deceased had recently recovered from typhoid fever, which may perhaps account for the weakness of the patient's heart. We understand that the quantity of chloroform given was unusually small, as it generally is in these fatal cases.

THE ROYAL AQUARIUM.—The Westminster Royal Aquarium was formally opened on Saturday last by the Duke of Edinburgh. In the new building, whose progress towards completion has been watched in most quarters with approval, there will be provided nearly every sort of amusement in which the British public delight. The chief feature of the exhibition, of course, will be the aquarium—when ready, but music, art, the drama, and a miscellaneous variety of attractions, including the now indispensable skating rink, will hold out inducements for support and patronage. The building, nearly 600 feet long, stands on the north side of Tothill-street, and is divided into numerous blocks and galleries. The structural arrangements appear to be perfect. We wish the undertaking success.

BRITISH MEDICAL BENEVOLENT FUND.—The annual general meeting was held on the 11th of January, Sir George Burrows, Bart., president, in the chair. The report showed that the total amount raised by the hon. financial secretary during the year 1875 comprised £951 subscriptions and £881 donations; there were also £200 in legacies. The sum of £1295 was distributed in grants of immediate relief among 126 distressed medical men and widows; and, as in many instances, these had families dependent on them, the aggregate of persons to whom aid was afforded greatly exceeded that number. Among the principal donations were—Dr. Warburton Begbie, £105; Prof. Erasmus Wilson, £105; Sir William Gull, Bart., £50; Dr. Charles Shrimpton, £150; the trustees of the late Miss Brackenbury, £150; the Sydenham District Medical Society, East Surrey, £52 10s.; Dr. Begley, £50; legacies of £50 from the late Dr. William Beattie; and £150 from the late Miss Davies. Four annuitants were selected to receive grants from the special fund, increasing the annuity in each case to £26.

A COMPANY has been formed to establish a Skating Rink on the site of the Portland Bazaar facing the Langham Hotel, connected with which there will be a club house, withlounge, promenade, &c. The total skating area will be abut 17,000 square feet.

SOCIETY OF PUBLIC ANALYSTS.—An extraordinary meeting of this Society took place on Wednesday evening at the Cannon-street Hotel, for the consideration of some proposed new regulations relating to the admission of members to the Society, and to the constitution of the Council. It was resolved that the latter body should henceforth consist of twelve non-official members instead of six as hitherto. The reading of a paper by Dr. Dupré, and of another by Dr. Cameron, brought the meeting to a conclusion.

BEQUESTS, &c., TO MEDICAL CHARITIES. — Mr. William Bishop, of Chepstow-villas West, Notting-hill, bequeathed £1000 each to St. Mary's Hospital, St. George's Hospital, Middlesex Hospital, Charing-cross Hospital, St. Bartholomew's Hospital, the Royal Free Hospital, the Brompton Hospital for Consumption and Diseases of the Chest, St. Thomas's Hospital, and the Small-pox Hospital. Mr. Henry Moses, of Park-square West, bequeathed £1000 to the Jews' Hospital at Lower Norwood, £300 to the London Hospital, £200 to the Metropolitan Free Hospital, and £100 each to the Brompton Hospital for Consumption, the City of London Hospital for Diseases of the Chest, and the Royal Free Hospital. Mr. John Stephen bequeathed £5000 to the trustees of Gray's Hospital, Elgin, the interest of which is to be applied in establishing a dispensary, to be called "The Stephen Dispensary."

# Medical Appointments.

BALDWIN, E. St. GEO., M.B., C.M., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

BENTON, S., L.R.C.P.L., M.R.C.S.E., L.M., has been appointed Assistant Medical Officer to the Central London Sick Asylum District at Highgate, vice Branfoot, resigned.

BENNAN, J. I., L.R.C.S.I., has been appointed Assistant-Surgeon to the Norwich Friendly Societies' Medical Institute.

BROWN, T., M.R.C.S.E., has been appointed a Medical Officer to the British and Foreign School Society's Training College for Schoolmasters, Borough-road.

BURGESS, E. J., M.R.C.S.E., L.R.C.P.L., L.M., has been appointed Midwifery Assistant to S. Bartholomew's Hospital, vice Spooner, resigned.

COLDSTREAM, A. R., M.B., C.M., L.R.C.S.Ed., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh.

COOM, E., M.R.C.S.E., has been appointed Resident Surgeon to the Claycross Hospital, vice Johnston, appointed a Medical Officer to the Leicester Provident Dispensary.

CRABB, J., M.B., C.M., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

CRETIN, E., M.B., M.R.C.S.E., has been appointed Senior House-Surgeon to the Birkenhead Borough Hospital, vice Davidson, resigned.

CUNNINGHAM, C. L., L.R.C.S.Ed., Medical Officer for No. 3 District of the Hastings Union, has been appointed also Public Vaccinator.

DIXON, E. L., L.R.C.P.L., M.R.C.S.E., has been reappointed a Medical Officer to the Preston and County of Lancaster Royal Infirmary, upon retiring by rotation.

FITZSIMON, C. C., M.D., L.R.C.S.I., has been appointed Resident Assistant Medical Officer to the Birmingham Workhouse.

GARSON, J. G., M.B., L.R.C.S.Ed., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh.

GILBERTSON, J. B., M.D., M.R.C.S.E., has been reappointed a Medical Officer to the Preston and County of Lancaster Royal Infirmary, upon retiring by rotation.

GODFREY, C. W., M.R.C.S.E., has been appointed House-Surgeon to the Huntingdon County Hospital, vice Greenway, resigned.

GRAHAM, Dr. A., has been appointed Medical Officer to Lodge Queen Anne A.O.D. (Rotherham District).

GRAHAM, W. DYO., M.B., C.M., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

GREENWAY, A. S., M.B., C.M., has been appointed a Resident Medical Officer to the St. Mary's Hospital and Dispensary for Women and Children, Manchester, vice Laing, resigned.

HAMILTON, J., L.R.C.P.Ed., L.F.P. & S.Glas., has been appointed Medical Officer and Public Vaccinator for the Church Gresley District of the Burton-on-Trent Union, vice Hall, deceased.

HUDDART, C. H. C., L.M., L.S., has been appointed Medical Officer and Public Vaccinator for the No. 4 District of the Dartford Union, vice Cooke, resigned.

IMLAY, G. A., M.B., C.M., has been appointed Medical Officer to the Bristol District Foresters' Hall and Medical Dispensary.

KENDALL, W. B., L.R.C.P.Ed., M.R.C.S.E., L.M., has been appointed Medical Officer for the Workhouse and the newly formed Kidsgrove District of the Wolstanton and Burslem Union.

LAIDLAW, G. L., M.R.C.S.E., has been appointed a Clinical Assistant at St. Luke's Hospital, vice Clunn, whose appointment has expired.

LAWTON, J., M.D., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed a Medical Officer to the British and Foreign School Society's Training College for Schoolmasters, Borough-road.

MAC DONALD, T. R., L.R.C.S.Ed., has been appointed a House-Surgeon to the Royal Infirmary, Edinburgh.

MAC LEOD, N., M.B., C.M., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh.

MAHOMED, F. A., M.D., M.R.C.P.L., has been appointed a Physician to the Western General Dispensary, Marylebone-road.

MILES, G. E., M.R.C.S.E., has been appointed Assistant Medical Officer to the North Wales Counties' Lunatic Asylum, Denbigh, vice Ellis, resigned.

MOODY, J. M., M.R.C.S.E., has been appointed a Clinical Assistant at St. Luke's Hospital, vice Hetley, whose appointment has expired.

NEWINGTON, A. S. L., M.B., M.R.C.S.E., has been appointed Medical Officer for the Waterperry District of the Thame Union, Oxfordshire, vice Perigal, resigned.

PRIDEAUX, Mr. E., has been appointed Assistant House-Surgeon to the Derbyshire General Infirmary, Derby, vice Livesay, whose appointment has expired.

PROCTER, J., M.R.C.S.E., has been appointed Medical Officer for the newly arranged Tunstall District of the Wolstanton and Burslem Union.

PUREFOY, R. D., M.B., has been appointed Obstetric Physician to the Adelaide Hospital, Dublin, vice Atthill, resigned, on being appointed Master of the Rotunda Lying-in Hospital.

ROY, C. S., M.B., C.M., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh.

SCOTT, C., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Bagnalstown Dispensary District of the Carlow Union, vice Trayer, resigned.

SHANNON, J., L.R.C.P.Ed., L.F.P. & S.Glas., has been appointed Medical Officer for the Whitehaven District of the Whitehaven Union, vice Dixon, resigned.

SHEPHERD, R. J., M.R.C.S.E., has been appointed Resident Medical Officer to the new St. Olave Union Infirmary and Workhouse at Rotherhithe.

SPENCE, T. F. H., M.B., C.M., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh.

STONE, W. D., M.D., F.R.C.S.E., has been appointed a Physician to the Finsbury Dispensary, Brewer-street, Clerkenwell, vice Lomas, resigned.

VAUSE, A. J., M.B., C.M., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh.

WHITE, C., M.R.C.S.E., has been appointed Consulting Surgeon to the Warrington Infirmary and Dispensary, vice Hardy, deceased.

WILLIAMS, W. B., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 4 District of the Ware Union, Herts, vice Moore, resigned.

WYNNE, W., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Cape Copper Mining Company, Namaqualand, Cape of Good Hope, vice Parson, resigned.

# Births, Marriages, and Deaths.

## BIRTHS.

DAVY.—On the 16th inst., at Guernsey, the wife of Francis A. Davy, M.D., Surgeon Army, of a daughter.

DOUGLAS.—On the 11th inst., at Rutland-square, Edinburgh, the wife of A. H. Douglas, M.D., of a son.

LAKE.—On the 19th inst., at Southampton, the wife of G. A. K. Lake, M.D., of a daughter.

MACINDOE.—On the 13th inst., at Lockerbie, the wife of Wm. Macindoe, M.D., of a daughter.

MAUNSELL.—On the 21st inst., at the Royal Arsenal, Woolwich, the wife of Surgeon-Major T. Maunsell, of a daughter.

TARRANT.—On the 23rd inst., at Chester-road, Bayswater, the wife of Dr. T. Tarrant, Surgeon-Major Army, of a son.

## MARRIAGES.

DOIG—BUCKNALL.—On the 10th inst., at Perth, Alex. Doig, L.R.C.P.Ed., Surgeon Army, to Jane Nina, daughter of the late John Chas. Lindsay Bucknall, Esq.

FITT—WARTON.—On the 7th ult., at Trinity Cathedral, Port of Spain, Trinidad, Samuel Weekes Fitt, L.R.C.P.Ed., M.R.C.S.E., to Adela Mary, daughter of Matthew Warton, Esq.

GARDINER—NORTH.—On the 18th inst., at Stoke-Damerel Church, Wm. Alexander Gardiner, L.R.C.S.I., Surgeon-Major Army, to Kate, daughter of the late John R. North, Esq.

## DEATHS.

BARKER.—On the 18th inst., at Hovingham, T. H. Barker, Surgeon, aged 62.

BLACKSHAW.—On the 15th inst., at Stockport, Thos. W. Blackshaw, M.D.

BROWN.—On the 31st ult., at Spring-bank, Strathaven, Andrew Brown, M.D., aged 72.

BURLEIGH.—On the 15th inst., at Torquay, Alfred Burleigh, M.R.C.S.E., of Hillside, Cotham, Bristol.

CARLETON.—On the 16th ult., at Russell-place, Dublin, D. J. Carleton, L.K.Q.C.P.I., aged 30.

CLARK.—On the 23rd inst., at Inverness, Hugh Clark, M.D., aged 40.

COOKE.—On the 14th inst., at Hogley-Hay House, Walsall, J. L. Cooke, M.R.C.S.E., aged 30.

FERGUSSON.—On the 31st ult., at sea, on board the P. & O. Co.'s steamer "Zambesi," Andrew Fergusson, M.D., Surgeon-Major Madras Army.

FLEWKER.—On the 16th inst., at Albury, Surrey, Wm. Flewker, Surgeon, aged 70.

GASCOYEN.—On the 23rd inst., at Queen Anne-street, Geo. Green Gascoyen, F.R.C.S.E., aged 46.

MARSHALL.—On the 12th inst., at Bucklyvie, Stirlingshire, James Marshall, L.R.C.S.Ed., aged 48.

MITCHELL.—On the 12th inst., at Stonehouse, Lanarkshire, James Mitchell, M.D., aged 79.

PARKER.—On the 6th inst., at Eversholt, Beds, Thos. Parker, Surgeon, aged 78.

WORTS.—On the 20th inst., at Colchester, Wm. Worts, M.R.C.S.E., aged 75.

[N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

# Notes, Short Comments, and Answers to Correspondents.

### PERAK AND THE OPERATIONS IN MALAY.

THE murder of Mr. Birch, the British Resident, and the subsequent operations against the Malays in Perak, have, temporarily at any rate, attracted some attention to this part of the world, just as a few years ago the Straits of Malacca occupied a prominent place in electioneering tactics. Until lately Perak was quite unexplored, and its interior still remains so. All that was known of it was that it was a Malay State, a little south of Penang, on the peninsula, under the protection (by treaty) of the British Government since 1826. Its principal article of export is tin, and the Dutch are said to have had a leading factory for tin in Perak as far back as 1641, and the Portuguese traded in that article with Perak when they had possession of Malacca. Owing to the faction fights in Laroot, which threatened to extend to Penang, Sir Andrew Clarke interposed, and the treaty of January, 1874, led to the appointment of Mr. Birch, with Captain Speedy as Assistant Resident, at Laroot. Both these gentlemen made explorations and furnished reports of the country. The late Mr. Birch explored the Perak river, a distance of 200 miles, and he described the land along the whole line of the river as admirably adapted for agricultural purposes. The country in the interior abounds in large game, but the jungle is thick. Laroot, the northern portion of Perak on the coast, is the richest part of the country. Rice is at present the only cereal cultivated by the Malays. The supply of tin from the whole land lying along the base of the Laroot mountain ranges is practically inexhaustible. The country is rich and fertile, with beautiful scenery and climate, the thermometer ranging from 65° to 86°. The Chinese, who form a very considerable section of the population, are stated to be strongly in favour of the British. The fighting has been more severe than was anticipated, and it will be seen that Surgeon H. L. Randall was severely wounded on a recent occasion by a ball through the thigh. According to the last received accounts, however, we are glad to find that he was doing well.

*D. H.*—All information on the subject may be obtained on application.

### THE INDIAN MEDICAL SERVICE.

*To the Editor of* THE LANCET.

SIR,—In your impression of the 20th November, 1875, there is a letter from "Half Pay," in answer to one of mine which appeared some time ago. He professes to have no interest in the matter; but I think that before wasting his valuable time and your valuable space he might have made himself more conversant with the state of the service as it is at present. It was not my intention to compare the Indian with the other medical services, but simply to show that we were unfairly treated and misled by the memorandum supplied to intending candidates at the India Office.

Your correspondent admits that the British surgeon gets more pay on coming out here than the Indian surgeon; and if he will take the trouble to look up the pay regulations, he will find that the seniors are quite as well paid as they are in the Indian service with permanent appointments, and they are never subjected to unemployed pay; whereas a man in the Indian service may be at any time, which is more than twenty per cent. less. A man in the British service always gets the best stations, which he has seldom to change, and, when obliged to do so, he, his family, and servants are all conveyed at the Government expense. He has always a good mess to live at, and other two medical men in the regiment, the best medical subordinates—viz., apothecary class—under him; thus he can get as much leave as he likes for shooting and other amusements. Moreover, he has only five years' service in the country, and a free passage always provided for himself and family both out and home again.

The Indian surgeon has to serve in out-of-the-way, unhealthy stations; when a junior he is knocked about all over the country, often having to pay for himself, his servants, and horse for hundreds of miles of railway and dak travelling. His duties are quite as arduous and much more disagreeable than those of the poorest parish doctor at home, as he is often half the year attending cholera patients in the bazaar or at a camp in the jungle. I have often been up more than half the night attending cholera patients; have had to walk miles, being unable to afford the keep of a horse, as I was only drawing unemployed pay—viz., 252 rupees,—which your correspondent speaks of in such terms of admiration. When one gets an acting appointment, there are so few officers with a native regiment they cannot support a dining mess; he consequently has to furnish a house, and provide himself with a large staff of servants, so it costs him about twice as much as living with a European regiment would; for this he only gets half allowances, which are not anything near what your correspondent is pleased to call the minimum amount mentioned in the India Office circular. Besides, he may only hold this for a month or two, when he is obliged again to move, having been put on unemployed pay again for some time; to necessitate him paying his own way to take up another wretched acting appointment, he is obliged to sell off his furniture at a considerable loss, and buy more at his new place. He remains in this unsettled state for four, five, or even six years of his service. Your correspondent in this particular of acting appointments is evidently as uninformed as he is on the other points of the service. He says that juniors have to act for seniors on furlough. That this is one cause of acting appointments is true, but by no means the most frequent, as exemplified by a case in my own knowledge, which is only too common, where one man was acting for a second, who was acting for a third, who again was acting for a fourth, who again was acting for a fifth, who was on short leave in the country, and all this expensive changing about for the purpose of saving Government a few hundred rupees, and taking it out of the pocket of its servants. There is another cause of frequent changes in acting appointments—viz., when a man holds one for a certain time in civil employ he draws full instead of half allowances. To prevent this, when you have acted nearly up to the prescribed limit of time you find yourself turned out.

As there is only one medical man with a native regiment or at a dispensary (*alias* civil employ), when a surgeon-major he has to do all the dirty work of a junior. He cannot get a day's leave without providing a substitute, and in an out-station this is impossible.

The private practice mentioned is a myth. Europeans are nearly all provided with gratuitous medical attendance. As for natives, they attend the dispensaries, or are attended by the apothecaries at their own houses. There are men of nearly forty years' service in the country who have never received a fee. Now, at a few of the large stations there is some consulting practice; but as British men are generally senior to the Indian men holding regiments, they get considerably more of it than the India men. The Madras Government sent a circular to its officers, threatening them with some severe punishment if they exacted fees.

The huge pickings spoken of by "Half Pay" are traditions. A man nowadays in charge of a native regiment is expected to keep a charger and provide himself with tents, but gets allowances for neither, as stated by your correspondent. If he means by sentimental grievance being sat upon and relative rank, we have enough of that to contend with. When in civil employ you are at the beck and call of the collector and the rest of the army of distinguished civilians. When in military employ it is quite as bad. There are generally three officers senior to the surgeon-major of a native regiment, and only two junior. A deputy surgeon-general in the Indian service never ranks higher than a lieut.-colonel; but there are so few of these in the active list that it makes very little difference. In the British service the surgeon-major is generally the second senior in the regiment, and a deputy surgeon-general remains long enough on the active list to get the relative rank of colonel. It is high time that the relative rank of medical officers in the services should be improved; but it is more requisite in the Indian than either of the others, as combatant officers of high rank are much more numerous here than at home.

Your correspondent considers the grievances stated in my former letter trivial because they related to pecuniary matters; but I think these are of primary importance in an expensive country like this. One might bear poverty with fortitude at home; but when added to the discomforts of Indian life it becomes almost intolerable. It is generous of him to admit that the pensions are small, even from an Indian point of view; but as they do not average half what civilians and military officers get for the same service in the country, he could not well get out of it. A surgeon of eight years' service in the country cannot draw more than 300 rupees per month when on leave; and as the rupee is only worth a little more than 1*s.* 9*d.*, it is considerably less than a pound a day, as stated by your correspondent.

The navy under the new Warrant is by far a more desirable service, and the monotony of the sea is nothing to some of the out-stations here. The expenses are so few in the navy that one can save money, and that is almost impossible here now, even under the most favourable circumstances, everything has gone up to such a price, and the value of the rupee has become so much less.

It is absurd to compare the services, as in the army and navy one has a jolly life and plenty of society; in the other, he has a life of drudgery and banishment, with ill-health often added.

I am sorry that I have again to trouble you and trespass on your valuable space; but had I not had the misfortune to meet a friend like "Half Pay," I would have entered one of the other services, and would not have to subscribe myself as,

Your obedient servant,

India, December, 1875. A BIRD CAUGHT WITH CHAFF.

*To the Editor of* THE LANCET.

SIR,—From the beginning of the year up to Nov. 27th, eight letters concerning the Indian medical service have appeared in your journal. One point, common to the first seven, is the disappointment in store for those entering the service, and a warning note is sounded. The eighth letter is from "Half Pay" (*vide* THE LANCET, Nov. 20th). He stands up for the Indian service, and compares it favourably with the British. There is no doubt that, from a pecuniary point of view, the Indian service is the best of the two. Moreover, we most of us consider it a good one. But what these first seven letters show is, that it is not so good a service as the India Office* advertisement makes it out to be, nor so good as "Half Pay's" letter would lead one to suppose. What he describes as "huge pickings" are appointments usually entailing very hard work; they are, moreover, as rare as they are big. The same may be said of the private practices. Attendance on the police, who in India form a very large body, is included in the duties of the civil surgeon. "Half Pay" quotes furlough pay as about £1 a day; it may be only £260 a year. It should be known that the depreciation, steadily continuing, in the value of the rupee taxes our pay and furlough pay at the rate of more than ten per cent.

For the benefit of those about to enter the service, your other correspondents have shown what the service is, and I believe their opinion to be that of the majority of medical officers.

Faithfully yours,

India, Dec. 31st, 1875. I. M. D.

* *Memorandum.*—Position of medical officers to be appointed to Her Majesty's Indian Forces. India Office, Dec. 1869.

*Omicron.*—Müller's fluid, which is well adapted for hardening delicate nervetissues, as the retina, glands, and even ciliated epithelium, has the following composition:—Bichromate of potash, 30 to 70 grains; sulphate of soda, 15 grains; distilled water, 1550 grains.

### TAKING TOLL.

THE Treasurer of St. Thomas's Hospital has sent the following unique letter to *The Times*:—

SIR,—A letter of which the following is a copy has been received here:

"Richmond-hill, Jan. 21.

"SIR,—I have some money to distribute as agent for a lady, and if you will allow me the usual 10 per cent. commission I will, by return, send you an annual subscription of two guineas, and you can send me 4*s.* 3*d.* in stamps. A reply by return will oblige, Sir, yours truly,

"The Secretary, St. Thomas's Hospital." "R. R. ALEXANDER.

I think this communication deserves all the publicity your columns would give it.

Yours faithfully,

St. Thomas's Hospital, S.E., Jan. 25. FRANCIS HICKS, Treasurer.

### A QUACK IMPRISONED.

A QUACK doctor in Ireland, named James Graham, has been sentenced to twelve months' imprisonment. He did not confine himself to mere advertisements, but travelled about from place to place, and visited those whom he had reason to believe were sick, frightening them out of what little wits they had by telling them they had a disease called "wolf on the liver." In this way he induced them to buy his medicine, promising to call again, which he did not do. We want a little more severity like this in the treatment of such itinerant quacks as Mr. Graham.

### STARCHED BANDAGES IN THE TREATMENT OF FRACTURES.

*To the Editor of* THE LANCET.

SIR,—Many appliances used in surgery, though no doubt in themselves extremely useful for the particular object with which they are employed, are, nevertheless, hurtful in their after-consequences, and it is well to decide, if possible, whether the immediate advantage obtained will counterbalance and outweigh the harm that may result from their use.

Starched bandages may, I think, be placed in this category. They have long been resorted to in the treatment of fractured legs, and there can be no doubt that the immediate benefit derived from them is great, in allowing the patient to use the limb at a much earlier period than he would otherwise be able to do; but at the same time it must be equally clear to all who have had much experience in the treatment of fractures that one of the effects of prolonged use of a starched bandage is a certain amount of wasting and atrophy of the muscles of the leg, which occasionally impairs its utility for a considerable period.

Where the object of the patient is to regain as soon as possible the full powers of the limb, it is unadvisable to resort to a starched bandage or removal of the ordinary splints. Far better he should remain in bed a week or two longer than run the risk of having his leg shrivelled up from the employment of such an apparatus. Where, on the other hand, the object of the patient is to be "set upon his legs" as soon as possible, and at all hazards, starched bandages will be found useful.

I have frequently treated two cases of fractured tibia and fibula similar to each other in every respect—one with and the other without starched bandages. The ultimate result was, as a rule, much more satisfactory in the latter than in the former.

The objection is not, perhaps, so strong where starched or other immovable bandages are employed as the primary apparatus, because it may be advocated that ordinary splints cause nearly as much wasting of the muscles; but it is, I think, a mistake to use them after union has taken place, merely as "supports," and with the sole object of getting the patients out of bed.

I am, Sir, your obedient servant,

January, 1876. D. CHARLES DAVIDSON.

*Inquirens.*—The inquiries should be addressed to the Crown Agents of the Cape of Good Hope, 12, Spring-gardens, S.W. We have not heard of any such appointments.

*X.*—We think it probable that he will escape, but should ourselves hesitate to express any positive opinion in the matter.

*Phys.*—Yes.

### THE INCOME-TAX AND THE PROFESSION.

*To the Editor of* THE LANCET.

SIR,—The accompanying verses were written by a surgeon who formerly resided in this village, and as they wittily express the heavy incidence of income-tax on professional men, you may perhaps think them worthy of a corner in your valuable journal, particularly as payment of that obnoxious tax will soon be wrung out of us all *solens volens*.

Yours very truly,

Culmstock, Wellington, Somerset, Jan. 18th, 1876. F. M.

*Lines written in* 1842 *by Ayshford Dunsford, Surgeon, Culmstock, Devon, claiming exemption from the Income-tax.*

I'm sorry to make so sad a confession
Of the profits that emanate from my profession;
But the fact is that most of the villages round
With surgeons, quack doctors, and druggists abound,
So much so that I am unable to clear
The sum of one hundred and fifty per year.
It would give me much pleasure could I return double,
And save myself all this additional trouble;
But opponents and bad debts beyond all redemption
Compel me to fill out this claim of exemption;
And what makes the matter so very much worse,
I've a wife and three children and no private purse.
So from these simple facts the collector must see
He can gather no tax upon income from me.

*Lines written in* 1847 *by the same Ayshford Dunsford, again claiming exemption from the Income-tax.*

I thought that the Government only intended
This tax should continue three years and be ended;
But the time is expired, and the tax doth remain,
So in rhyme I must claim my exemption again.
To proceed then at once: I am sorry to say
My finances are such that I've nothing to pay:
My books I've explored, and I'm ready to show
That I'm not one mite richer than three years ago;
My children are older, expenses are more,
And I work like a horse, too, but yet I am poor.
The life of a doctor is *labor* and *sorrow*;
You may physic to-day, 'tis forgotten to-morrow;
So the profits (deducting bad debts) must be great
To be able to pay anything to the State.
To be candid, I've nothing on which I can live
But that which my humble profession doth give;
Yet should any property fall in my hands,
Be it funded or be it in houses or lands,
I then with the greatest delight shall be willing
To pay this *just* tax to the very last shilling.

*Surgeon.*—The instrument to which our correspondent refers is probably Torswill's syphon stomach-pump, made on the principle of Higginson's syringe. It can be obtained of Messrs. Arnold and Sons, Smithfield. No notice of it has appeared in our columns.

### THE DOUBLE PROP OF UNQUALIFIED PRACTICE.

*To the Editor of* THE LANCET.

SIR,—I have been pleased to see the matter of "private dispensaries" written upon in your journal by gentlemen who have tried them, both with success and non-success. In all the letters that have appeared it has been taken for granted that those who have tried the experiment have been qualified members of the profession.

Now, Sir, I am going to relate something that will startle you. Within a short distance of my residence there has lately been established a "private dispensary." To this enterprise Dr. Garrett, of Hastings, has lent his name, and put in an unqualified person, named "Mr. Brown, for Dr. Garrett." Thus he designates himself in a letter I had from him, desiring the loan of some tooth instruments. I have written to the registrar of Rotherhithe, asking to be informed as to the death certificates sent by Mr. Brown. He politely informed me that they were all signed by *Dr. Garrett, of Hastings and Rotherhithe.*

Is it not time that a practice so prolific in evil in many ways should be put an end to? Not satisfied with doing the deed in one place, there has been another private dispensary established in Edward-street West, Deptford, in connexion with this one at Rotherhithe. I have suggested to our registrar that he should try to ascertain whether Dr. Garrett *really* did see the cases he certifies, and, if not seen by him, refuse to accept the certificate, and have an inquest on the body. You will readily perceive where the last idea came from.

Truly yours,

Plough-road, Rotherhithe, Jan. 17th, 1876. J. SHAW.

*Mr. G. Padley*, (Swansea.)—Our correspondent is thanked; but we think it unnecessary to reproduce the remarks, as they throw no new light upon the subject.

### SYPHILIS AND INSANITY.

*To the Editor of* THE LANCET.

SIR,—Will you permit me to draw the attention of your readers who have been interested by Dr. Macleod's notice of the connexion between syphilis and insanity to the fact that several years ago the late Dr. David Skae (whose assistant and pupil at the Edinburgh Royal Asylum I had the privilege to be) classified "syphilitic insanity" as a distinct form of mental (dependent on bodily) disease.

Under Dr. Skae's able guidance I have been accustomed to recognise in this affection certain marked mental symptoms during life, and certain frequent, but by no means invariable, pathological lesions after death.

I strongly recommend those wishing to study this subject to read one of Dr. Skae's Morrisonian Lectures, reported in the *Journal of Mental Science*, April, 1876, entitled "Syphilitic Insanity"; also the reports of cases in the January number of the same journal, 1874, by Drs. Newington, Batty Tuke, and Cadell.

Believing that the importance of the study is sufficient excuse for my drawing attention to the above-mentioned sources of information,

I am, Sir, your obedient servant,

ERNEST SHEAR, M.R.C.P.,
Late Assistant-Physician at the Royal Edinburgh Asylum for the Insane.

Barrow-in-Furness, Jan. 13th, 1876.

*M.R.C.S.*—The practice described is wrong; but we do not think a prosecution would be successful.

*Public Vaccinator.*—Mr. Marson's articles in Reynolds's System of Medicine and Dr. Ballard's Book on Vaccination.

### HOW SHALL PRACTICE BE COMMENCED?

*To the Editor of* THE LANCET.

SIR,—I have just commenced practice on my own account, and, of course, find patients few and far between. Necessarily I have a good deal of spare time on my hands, and, not wishing to be idle, I should be much obliged if you or any of your correspondents would kindly advise me how to establish a provident dispensary. I do not wish to do anything that would be derogatory to my profession; but whilst it would give me work to do, and so keep my hand in, it would also help me to live in an honourable way.

I am, Sir, your obedient servant,

Jan. 17th, 1876. INQUIRENS.

*** The question of "Inquirens" is one more easily put than answered. Still it is a natural question which should not be shirked, and he writes as if he wished not to break those rules of conduct which distinguish the spirit of a profession from that of a trade. It is more easy to put rules into a negative form, for which we have high authority. We shall therefore mainly tell our correspondent what he is not to do. First, he is not to do anything tending to draw away to himself the patients of other medical men. Secondly, he is not to distribute handbills, which are, in the first place, unprofessional, and, secondly, are sure to reach the patients of medical neighbours, who are both injured by them and set against the movement. With these qualifications there is nothing to condemn in the attempt to establish a provident dispensary. And our correspondent would do well to ask the co-operation of other practitioners. If they are too busy to join him, they may not object to recommend patients too poor to pay ordinary bills, but able to join a provident dispensary. He might also ask some help from respectable druggists, whose knowledge of the classes fit for provident dispensaries is large, and also from the ordinary charitable dispensary of the place, which is frequently imposed upon by unfit patients.—ED. L.

*Dr. Parkin*, (Margaret-street.)—We are unable to insert any further correspondence on the subject.

*Mr. J. J. A. Baye.*—The letter was received.

INFILTRATION OF CELLULAR TISSUE WITH AIR.

*To the Editor of* THE LANCET.

SIR,—Mr. A. Prince's interesting case of extensive infiltration of cellular tissue with air, occurring during labour, reminds me of a similar accident in a case of whooping-cough observed by me and my friend Mr. T. B. Hay, now of New Zealand. For three days before death the skin of the neck and upper front of the chest became largely inflated at every paroxysm, a partial subsidence taking place in the intervals. No autopsy was allowed.

I am, Sir, yours truly,

Richmond-road, N., Jan. 17th, 1876. WM. M'LAURIN, M.B.

THE LATE MR. BEALE.

*To the Editor of* THE LANCET.

SIR,—Allow me to offer you my sincere thanks for inserting my letter in your valuable journal on January 1st. May I ask you to increase your kindness by permitting me through the same medium to acknowledge the following subscriptions already received.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sir W. Jenner, Bart. ... | ... | £5 | 5 | 0 | Dr. Roche Lynch ... ... | £1 | 1 | 0 |
| Sir J. Paget, Bart. ... | ... | 2 | 2 | 0 | Dr. W. Thorn ... ... ... | 1 | 1 | 0 |
| Dr. L. S. Beale ... ... | ... | 1 | 1 | 0 | Mr. H. Hodson Rugg ... | 1 | 1 | 0 |
| Dr. Begbie ... ... ... | ... | 2 | 2 | 0 | Dr. Danford Thomas... ... | 0 | 10 | 6 |
| Dr. Barr Meadows ... | ... | 1 | 1 | 0 | Mr. Hill... ... ... ... | 0 | 10 | 0 |

I am, Sir, yours respectfully,

Jan. 20th, 1876. SARAH BEALE.

CLIMATE.

*To the Editor of* THE LANCET.

SIR,—I shall be very much obliged if any of your readers can inform me of a climate residence in which is likely to subdue psoriasis. The obstinate disease has resisted all treatment for a dozen years, but nearly disappears in summer. I should like to emigrate to a colony which would also afford field sports.

Yours truly,

January, 1876. GEMAZI.

A VINDICATION.

New Orleans, July 22nd, 1875.

SIR,—A cut-out piece (a clip) from your paper, the *News-Letter*, was sent to me a few days ago. I see my name among the list of physicians whom you ask, Have you a diploma? I answer that I have one from the University of Pennsylvania, and that your further publications about me are fals (*sic*).

Mr. Marriott, San Francisco. C. L. ROYER, M.D.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from — Mr. H. Smith, London; Dr. Brown-Séquard, Paris; Mr. Timothy Holmes, London; Mr. Spencer Watson, London; Dr. I. Burney Yeo, London; Prof. Spence, Edinburgh; Right Hon. Lord Cardwell, Norwich; Mr. Teevan, London; Dr. Southey, London; Mr. John Gay; Dr. Mason, Dublin; Dr. Downes, St. Leonard's; Dr. Wilson, H.M.S. *Malabar*; Mr. Bateman, Forest Hill; Mrs. Beale, London; Mr. Gannon, London; Mr. Wolff, London; Dr. Love, Kellygordon; Mr. Alexander, Halifax; Dr. Dickinson, Workington; Mr. Crabb, Edinburgh; Dr. Boerner, Berlin; Dr. Bakewell, Dunedin, New Zealand; Mr. Davy, London; Dr. Fitzsimons, Kilkenny; Dr. M'Kee, Randalstown; Mr. Keating, Netley; Dr. Swales, Sheerness; Mr. Bogden, Stockport; Dr. Graham, Rotherham; Mrs. Hunter, Reigate; Mr. Jenkins, London; Mr. H. K. Lewis, London; Mr. Davis, London: Mr. Wilson; Mr. Hunt, Leicester; Dr. Williams, Ennis; Mr. J. Elsworth, London; Mr. Stark, London; Dr. Cassell, Glasgow; Dr. Parkin, London; Mr. Hett, London; Dr. Procter, Shifnal; Messrs. Arnold and Sons, London; Mr. Campin, London; Dr. Wiltshire, London; Mr. George, Whitchurch; Dr. Bramwell, Newcastle-on-Tyne; Mr. Burgess, London; Mr. Gawith, London; Dr. Adams, Bourne; Dr. Maclagan, Dublin; A. M.; A. M. D.; The Committee of the Rumsey Testimonial Fund; Delta; W. E.; M.D.; L.R.C.P. Lond.; Live and let Live; T. M. D.; X.; Studens; Bayswater; A would-be Cambridge M.D.; B. H.; G. S.; M.R.C.S., Birmingham; J. G. S.; Medicus, Swansea; A Twenty Years' Subscriber; F. X., Dublin; A Public Vaccinator; L.R.C.P. Edin.; M.D., Abingdon; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Dr. Thomson, Oldham; Messrs. Smith and Son, Dublin; Mr. Wright, Birmingham; Messrs. Leader and Sons, Sheffield; Mr. Austen, Tongue; Mr. Elliott, Carlisle; Dr. Mackay, Inverness; Dr. Taylor, Penrith; Mr. Walker, Wakefield; Mr. Campbell, Lochcarron; Mr. Martin, Weston-super-Mare; Dr. Watson, Penistone; Mr. Evans, Seaford; Dr. Dickinson, Liverpool; Rev. R. Somerset, Cambridge; Dr. Leeson, Ilkley; Dr. Harris, Truro; Dr. Hunter, Pontypridd; Dr. Martin, Inkberrow; Mr. Taberner, Wigan; Dr. M'Nab, Bury St. Edmunds; C. F., Ingatestone, Essex; X. Y. Z.; F. W., Birmingham; R. T., Bisley; R. J. R.; M.R.C.S., Thrapstone; Kappa; Alpha, Peterborough; Beta; Medicus, Nottingham; B. A., Pontypridd; Medicus, Blackburn; A. B., London; Medicus, Manchester; Angelus; Theta; Medicus, Ellesmere; A. M. B., Huddersfield; R. M. O.; L. R.; W. C.; Omega; Beta, Tipton.

*Brighton Observer, Western Morning News, Newcastle Chronicle, Sheffield Telegraph, Welshman, Manchester Guardian, Surrey Advertiser, Metropolitan, Lincoln Gazette, Cork Constitution, Liverpool Post, East London Observer, Demerara Times, Staffordshire Sentinel, Birmingham Daily Post, Huddersfield Daily Chronicle*, and *Hastings and St. Leonard's Chronicle* have been received.

## METEOROLOGICAL READINGS

*(Taken at 8 a.m. by Steward's Instruments.)*

THE LANCET OFFICE, JAN. 27TH, 1876.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Wet Bulb. | Dry Bulb | Solar Radiation in Vacuo | Max. Temp. Shade | Min. Temp. | Rainfall. | Remarks at 8 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| Jan. 21 | 29·71 | S.W. | 44 | 46 | ... | 47 | 44 | ... | Overcast |
| „ 22 | 30·19 | N.E. | 35 | 37 | ... | 42 | 34 | ... | Cloudy |
| „ 23 | 30·40 | E. | 37 | 40 | ... | 45 | 37 | ... | Cloudy |
| „ 24 | 30·50 | W. | 41 | 43 | ... | 52 | 38 | ... | Cloudy |
| „ 25 | 30·54 | S. | 35 | 36 | ... | 45 | 35 | ... | Foggy |
| „ 26 | 30·38 | S.E. | 39 | 40 | ... | 49 | 35 | ... | Foggy |
| „ 27 | 30·38 | S.E. | 44 | 46 | ... | 51 | 39 | ... | Foggy |

# Medical Diary for the ensuing Week.

## Monday, Jan. 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON. — 8½ P.M. Lectisomian Lectures: Dr. C. Theodore Williams, "On the Influence of Climate in the Treatment of Pulmonary Consumption: Comparison of Home and Foreign Climates.

## Tuesday, Feb. 1.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. Debate on Syphilis.

## Wednesday, Feb. 2.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Adjourned Discussion on Dr. Meadows's "Note on the Post-mortem Diagnosis of a Nulliparous Uterus": Illustrative Specimens by Dr. Braxton Hicks, Dr. Edis, and others.—Dr. John Williams, "On the Mechanical Action of Pessaries."—Dr. Cooper Rose: "A Contribution to the Statistics of Midwifery in General Practice."—And other communications.

## Thursday, Feb. 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HARVEIAN SOCIETY.—8 P.M. Mr. Alfred Cooper, "On Piles, their Diagnosis and Treatment."

## Friday, Feb. 4.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

## Saturday, Feb. 5.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.


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